

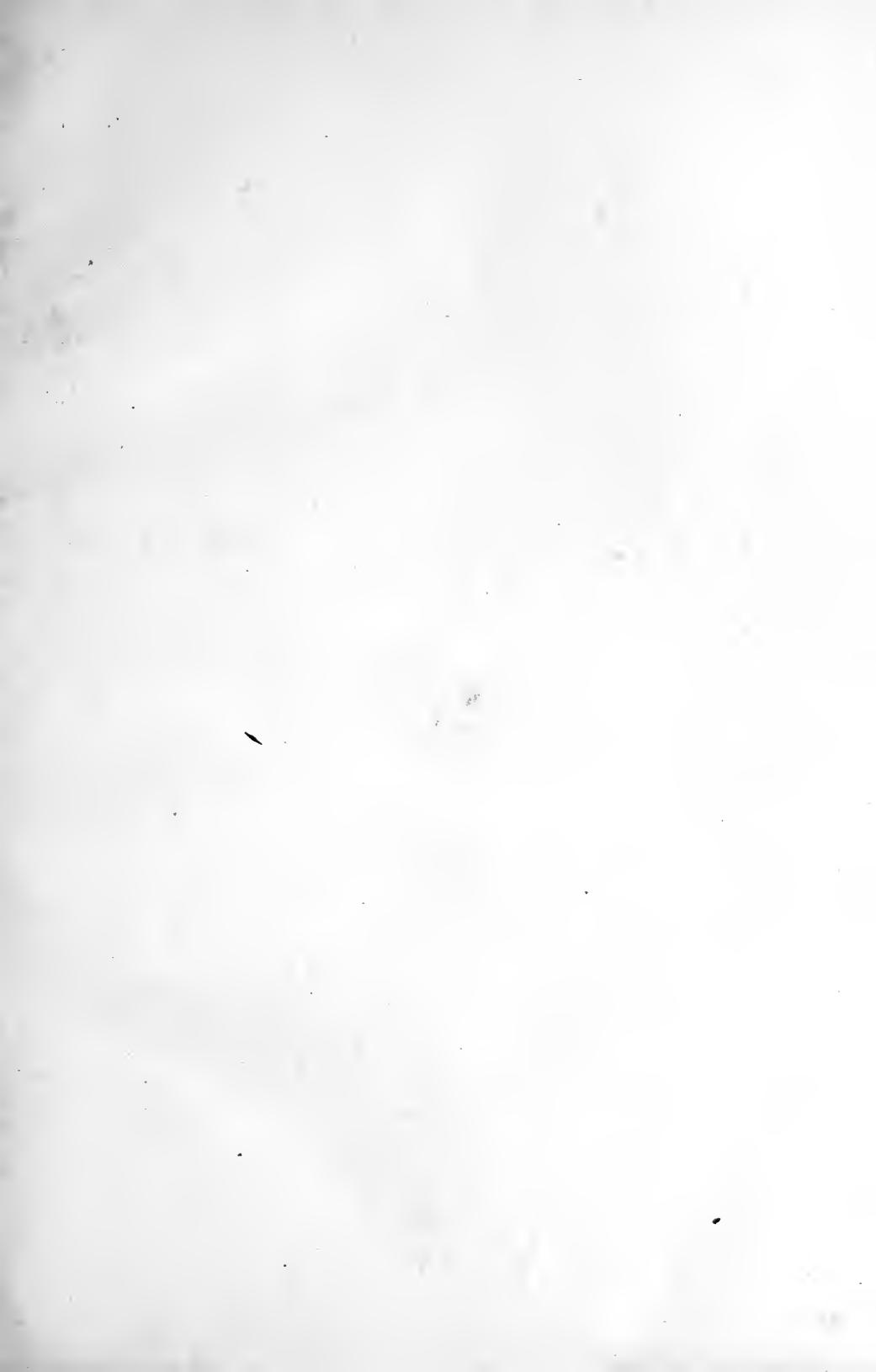
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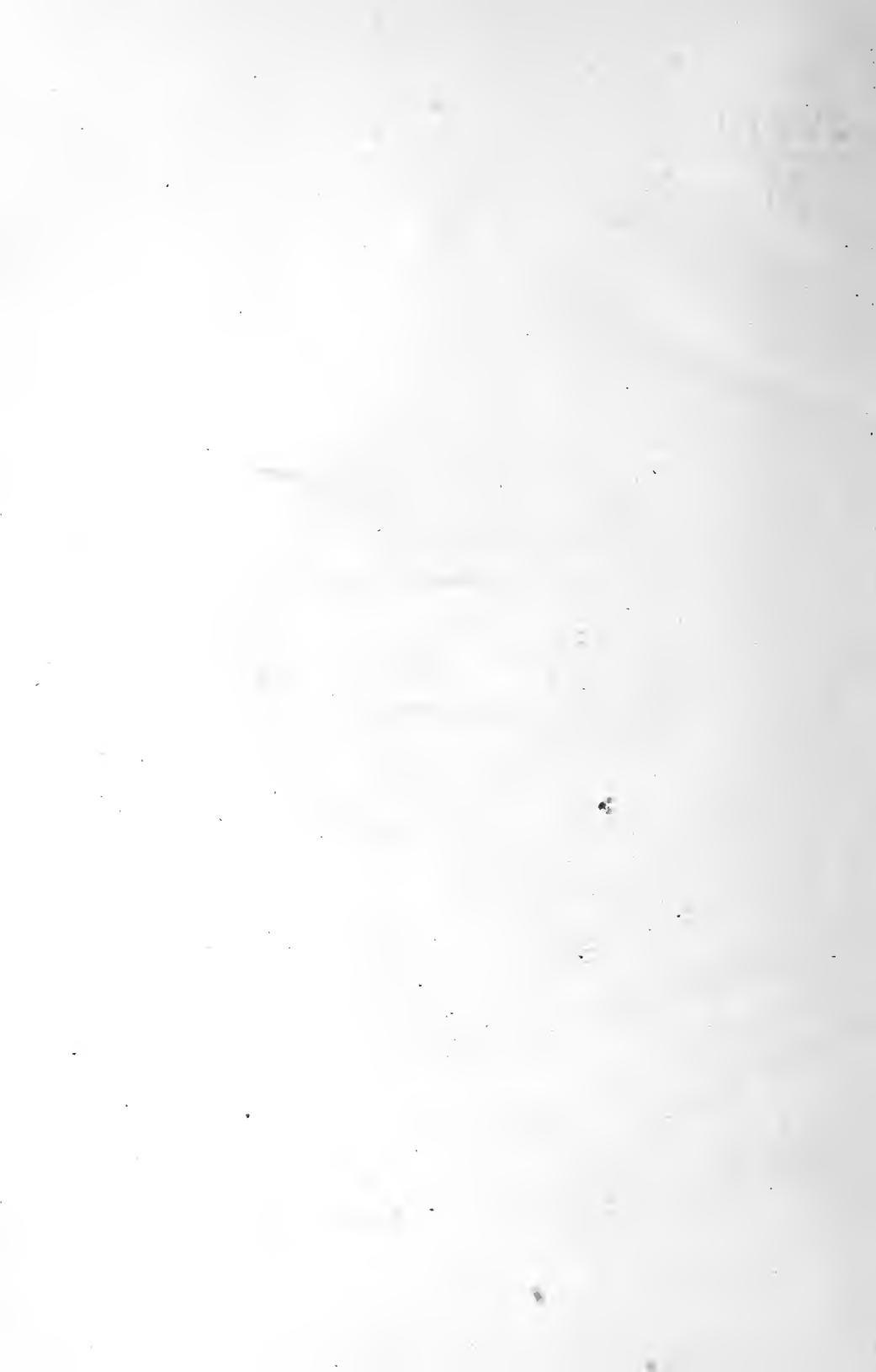
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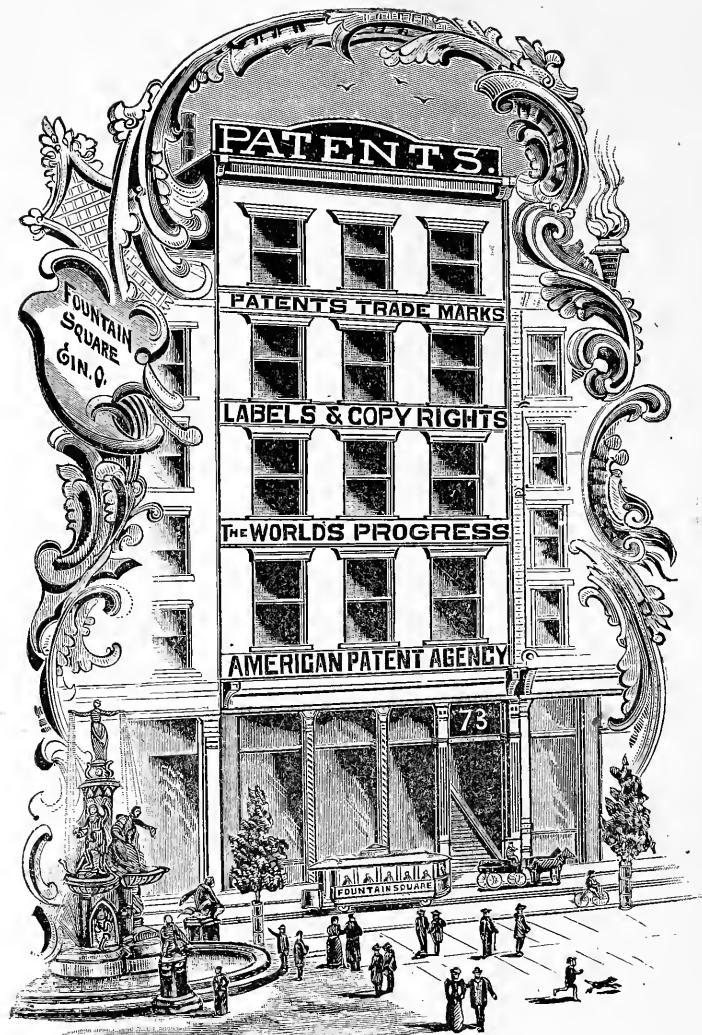


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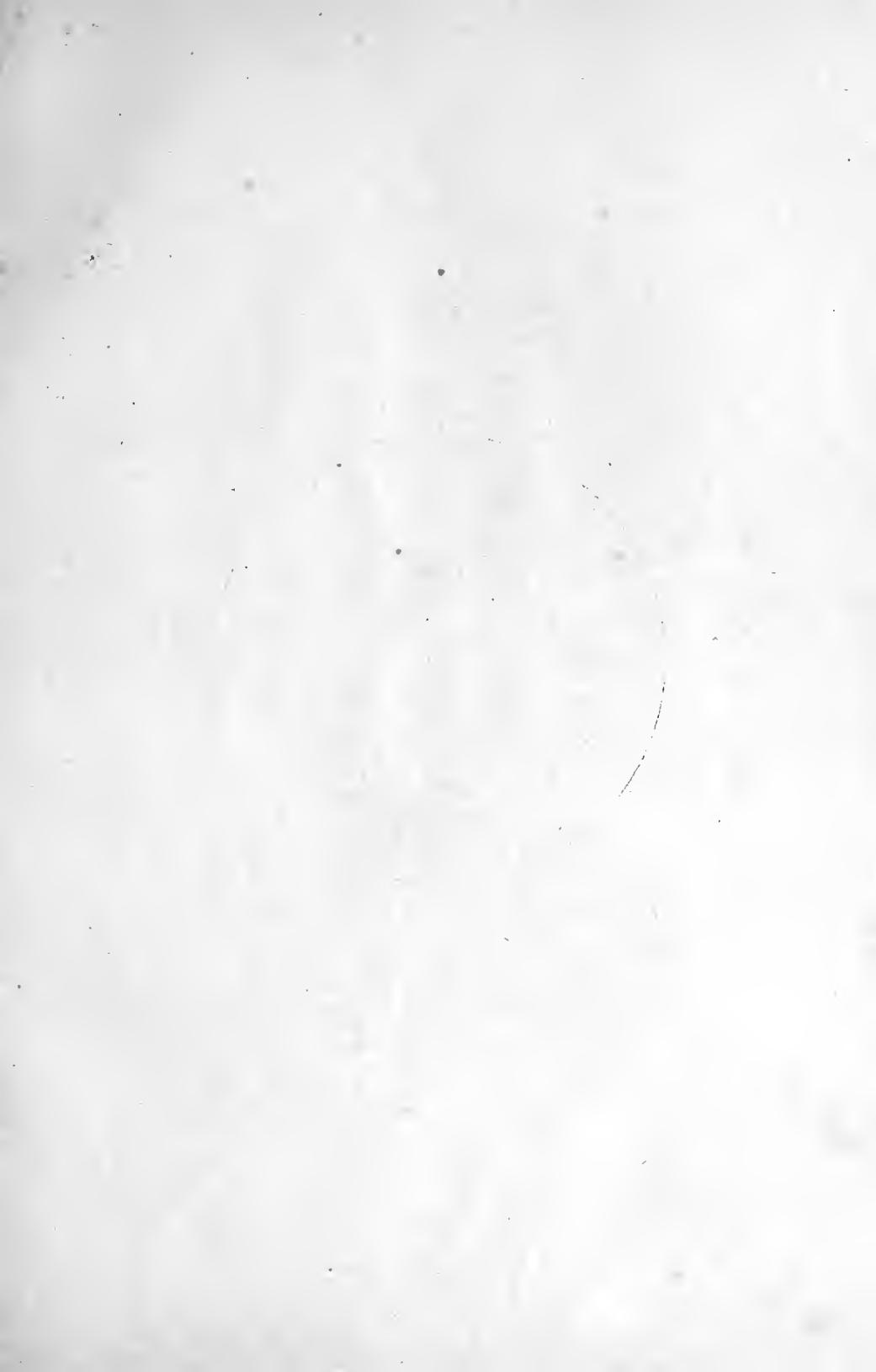
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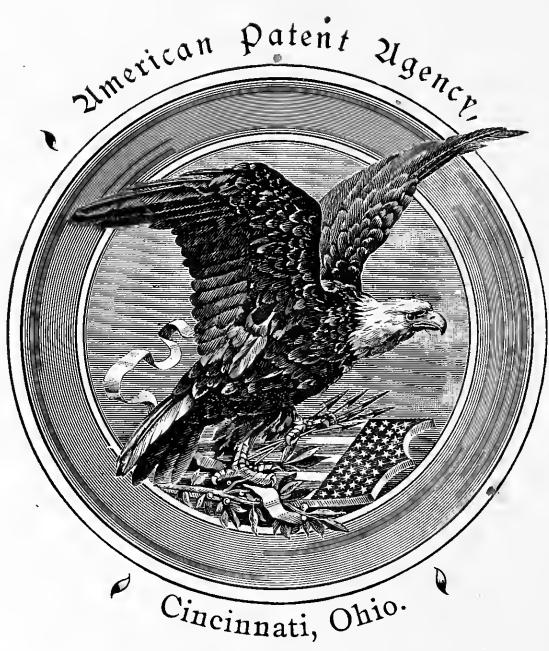


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O. J. BAILEY, Manager, 73 W. Fifth St., CINCINNATI. O.

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— THE —
INVENTOR'S MANUAL,

— SHOWING —

HOW TO PROCURE AND SELL PATENTS.

CONTAINING PRACTICAL SUGGESTIONS FOR THE BENEFIT OF
INVENTORS AND PATENTEES,

— TOGETHER WITH —

VALUABLE TABLES OF USEFUL INFORMATION FOR ALL TRADES AND PROFESSIONS.

15 ✓ ✓ ✓
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CINCINNATI, O.

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REASONS WHY INVENTORS SHOULD PROCURE THEIR PATENTS

—THROUGH THE—

American Patent Agency.

1. The location of the Home Office is central, and it has, in addition, an Associate Office in Washington, by means of which the business is personally attended to before the Patent Office.
2. This Agency employs only experienced solicitors and draughtsmen to prepare cases; the gentleman having charge of the Soliciting Department is an attorney of many years' practice before the Office.
3. It has a complete record of all patents issued, from the inception of the Patent Office, showing the state of the art in any class, for aid in making preliminary examinations and in preparing new cases.
4. It publishes in the columns of **THE WORLD'S PROGRESS** a *full description* of patents obtained through this Agency, *free of charge*, when desired by the patentee.
5. It makes no additional charge for preliminary examination; and in no case will charges for *extras* be demanded, however arduous the labor, except in cases of appeal.
6. It renders the best service for the most moderate fees, and does not claim to have facilities at the Patent Office other than are possessed by all reliable firms.
7. We employ a staff of consultants in the various branches of art and science, in order to give our clients the benefit of the best talent in preparing applications for patents.
8. It has a Special Department—the largest in this country—for the introduction and sale of patents, and has in its charge over forty branch offices located in the principal cities of the Union, besides hundreds of corresponding agents who are ready to take charge of any business assigned to them.

CORRESPONDENTS

Should bear in mind that we are always ready and willing to answer inquiries relating to inventions and patents. For this we make no charge; but we are frequently called upon to devote time and labor on communications which are supposed to be of benefit to our correspondents only. The simple matter of courtesy dictates that at least a stamp should be inclosed for return answer, and we are compelled, hereafter, to notice only such correspondents as recognize in some degree the value of our time.

PLEASE NOTICE.

There are numbers of inventors and patentees who, regardless of our advertised terms and methods of doing business, keep sending offers of interest in their patents to place them on the market, or interest in their ideas to procure a patent, and who also propose to pay the printing bills, etc., out of the first sale, paying no attention to our oft repeated declaration that we will in no case deviate from our terms. We would respectfully notify all concerned that we have no time nor disposition to attend to such correspondence, and we therefore notify patentees generally that it is useless to trouble us with their models or correspondence unless they are willing and prepared to do business with us according to our terms as submitted, which are equitable and based upon business principles.

EXPLANATORY.

OUR FACILITIES, RULES, ETC.

Business Confidential.

All business will be strictly confidential, and every case receive prompt attention.

Contingent Fees.

We do not conduct business on the contingent—*no patent, no pay*—plan. Two Commissioners of Patents have inveighed against the system as a most pernicious one, both to the Office and to inventors. The most deplorable effects, however, are felt by inventors, because the primary object of the solicitor who adopts that plan is to get his fee as soon as possible, and in order to do this he has every inducement to draw the claims without regard to strength, so that they will readily pass the examiner. Thousands of worthless patents have been issued because the claims were inadequate. The attorney who is paid for his services without depending on contingencies feels in duty bound to render efficient work, and when coupled with the proviso that his fee is fixed, the inventor has a guarantee, and the attorney a satisfaction, which no other system affords.

Preparation of Claims.

The work required to prepare a patent application is trivial compared with the work often necessary to prosecute it after filing it in the Patent Office. It frequently happens that the drawings and papers can be prepared within an hour or two, but the subsequent work, in watching it through every stage in the Office, and in seeing justice done to our client, will make up for the ease with which the case is prepared. To secure strong, equitable claims is the duty of the honorable attorney, and not to push it through in the shortest time. One-half of the worthless patented claims to-day are the result of eagerness on the part of attorney or patentee to secure the patent. A claim can be worded so as to mean nothing at all, or to embrace a combination which conveys no security to the patentee. Such claims usually result where no other object is sought for on the part of the attorney but the patent—and his fees. A few dollars more paid to a competent attorney than to a poor one, may mean thousands of dollars additional value when your patent is issued.

Models, Etc.

The Patent Office will not receive models unless specially demanded by the Examiner. We prefer, however, where it can be done, to prepare our documents from a model, unless a clear and intelligible drawing or sketch can be furnished. We aim to do thorough and conscientious work, and we want every facility that you can afford in intrusting us with your case.

Descriptions of Your Device.

You should always give us a clear and comprehensive statement of your device and its operation; we are not particular as to grammar, spelling or chirography; we want the facts. Our specifications will be so clear and broad that no fault can attach to them. We pride ourselves on this feature.

Our facilities.

Our corps of competent specialists, in preparing Specifications, gives us an advantage, from the fact that it enables us to place special cases in the hands of men who are par-

ticularly adapted for the work. Our new system of consultants is but an enlargement of the plan practiced by us in the past. Indeed, it is generally conceded that the specialty plan is growing to be more and more a necessity each year, and our system of uniting under one management the various branches, has every element of strength, and is adapted to the true spirit of progress.

Guarantees, Etc.

The question is frequently asked, "Do you guarantee a patent?" We answer, "No." If inventors want the kind of patents which come to them through guarantees, they must apply to those who have no reputation at stake and have no desire to render full, complete and honorable service. Furthermore, no attorney can guarantee a patent, any more than he could guarantee a legal decision.

Preliminary Examinations.

In uncrowded classes our fee is \$5.00. Years ago, when the number of patents was small, an attorney could well afford to charge only \$5.00 for making a preliminary search to ascertain whether a device was patentable or not; but the immense number of patents now makes it absolutely impossible for any man to do justice to many of the subjects for that fee. The mere fact that numerous cases submitted would require a critical examination of from two to four thousand patents, must convince any one that a person who will agree to conduct the preliminary examination of any and all cases for \$5.00 each should be looked on with suspicion. It is true that \$5.00 is an ample fee for many subjects; but in this particular, as in all others, our clients will know, BEFORE WE PROCEED, what the cost will be for such service if a search is requested.

Free Advertisements.

We have made it a rule to give a description **FREE OF CHARGE** in **THE WORLD'S PROGRESS** of all patents procured by us, when the patentee desires it. **THE WORLD'S PROGRESS** has a very large circulation, and being connected with our Department for the sale of Patents, enables you to reach the very men desired to effect sales, or manufacturers who are looking for improvements. We can say, unhesitatingly, that the advantages thus offered cannot be equaled by any other firm in the country.

Washington Associate.

The constant increase in our business has necessitated the enlargement of our office facilities in Washington, and a removal was consequently made to our present quarters, within half a square of the Patent Office. Every case requires personal attention before the examiner. Mr. L. Deane, who has charge of the Washington office, was for twelve years an Examiner in the Patent Office, and is well known as a leading patent attorney, and competent in every respect.

Consulting Experts.

The profession of patent soliciting has gradually grown to be a most important one in this country. Although it has always been dignified as a specialty requiring more than the ordinary tact, ability and particular training, the multiplicity of inventions, the wide scope of the subjects, and the intricate nature of many of the classes in the Patent Office, render it impossible for any man to be fully informed in all branches.

In common with other practitioners, we have appreciated the need of consultants in order to give our clients the best results possible, and to attain this end we have secured the services of gentlemen, eminent in their profession, to whom we will submit all intricate or important questions during the progress of cases in the Patent Office.

The importance of this cannot be overestimated. It frequently occurs that technical and scientific points are raised by the examiner which require careful and elaborate briefs to overcome, and while we claim to have the experience and knowledge, and a varied staff of assistants equal to any other firm in the country, we are not arrogant enough to claim thorough scientific erudition in every department of art and science. In the employment of these gentlemen we shall exact no extra compensation from our clients, as our extended business amply justifies the outlay.

Broad Claims.

The great and growing need of the inventor of to-day is careful, honest and conscientious work in the preparation and prosecution of applications for patents. The specifications should be accurate and full, and the claims broad and well defined. Our system enables this to be done in a comprehensive manner, so that the results will not only be a matter of pride to us, but a lasting service to our clients.

CLASSES AND SUBJECTS.

In order that you may see the broad scope of the subjects that we have taken special pains to cover, we append the following list:

Agricultural.

Including harrows, plows, seeders and planters, harvesters, thrashers, dairy, trees, plants, flowers, fences, live stock, bee culture.

Metallurgy and Metal Working.

Including coating with metal, tempering, annealing, cementation, metal bending and straightening, bolts, nuts, screws, rivets, boring and drilling, metal rolling, tools and implements, tubing and wire, turning, planing and milling, nails and spikes, needles, pins, metal punching and shearing, wagon, car and track irons, metal founding, sheet metal ware, metal working tools, nut and bolt locks.

Arms, Projectiles and Navy Appliances.

Including fire arms, bombs, cartridges, torpedoes, primers, rockets, shells, ordnance, ships, boats, marine propulsion, packing and storing vessels, signals, explosives.

Engineering.

Including bridges, carpentry, excavating, masonry, railways, roofing.

Milling.

Including purifiers, bolting machines, grinders, crushers, rolls, millstones and appliances, coal and ore breakers, sifters, screens, grain séquurers.

Electricity.

Including alarms, batteries, brakes, conductors, cut outs, electric lights, magnets, coils, keys, lightning rods, meters, registers, recorders, switches, switch boards, telegraphs, telephonic appliances, underground lines, electrical clocks, gas lighting, poles, therapeutics, thermostats.

Mechanical Devices.

Including motors, mechanical powers, presses, paper making, book binding, paper manufactures, air and gas engines, fluid pressure regulators, injectors and ejectors, steam pumps, boilers, boiler furnaces, valves, elevators, locks and latches, safes, spinning, weaving, coopering, stone working, wheelwright machines, wood sawing, turning and working, laundry devices, measuring instruments, wind wheels, driers.

Railway Appliances, Etc.

Including axles and boxes, lubricators, brakes, car couplings, draw bars, locomotives, platforms, trucks, wheels, buffers, chairs, crossings, frogs, rails, switches, tracks, snow plows, traction grippers, transfer tables, turn tables, car refrigerators.

Hydraulics.

Including hydraulic, mechanical, mercurial and rotary air pumps, accumulators, compressed air, water elevators, double acting drainage and force pumps, lift and oil pumps, sand and ship pumps, windlass water elevators.

Pneumatics.

Including aerial navigation, bellows, blow pipes, chimneys and cowls, fan attachments, sand blowers, ventilation as applied to cars, houses, grain and mines.

Chemistry.

Including mineral acids, carbon, compounds, distilling wood, fire extinguishing compounds, incandescents, metalloids, packing chemicals, purifying water, salines, etc.

WHO MAY OBTAIN A PATENT.

Any person, whether citizen or alien, being the original and first inventor or discoverer of any new and useful art, machine, manufacture or composition of matter, or any new and useful improvement thereof, may obtain a patent for his invention or discovery, subject to the conditions hereinafter named.

Joint Inventors.

Joint inventors are entitled to a joint patent; neither can claim one separately; but the independent inventors of separate and independent improvements in the same machine can not obtain a joint patent for their separate inventions, nor does the fact that one man furnishes the capital and the other makes the invention entitle them to make application as joint inventors.

What Will Bar a Patent.

A patent will not be granted to an applicant if what he claims as new has been, before his invention, patented or described in any printed publication in this or any foreign country, nor if it has been in public use or on sale more than two years previous to his application.

What Constitutes Invention.

Merely conceiving the idea of an improvement or machine is not an "invention" or "discovery." The invention must have been reduced to a practical form, either by the construction of the machine itself, or by such disclosure of its exact character that a mechanic, or one skilled in the art to which it relates, can and does construct the improvement, before it will prevent a subsequent inventor from obtaining a patent.

INSTRUCTIONS.

MODE OF PROCEEDING TO OBTAIN A PATENT.

The question that naturally arises in the mind of every inventor, as soon as an invention is completed, is: "Can I obtain a patent?" To ascertain this, by at once making an application and paying the required fees, will, in many cases, subject the applicant to needless expense which could have been obviated by an investigation prior to taking the final steps. To ascertain whether the device is patentable, we will institute, at the request of the inventor, a *preliminary examination* of the records of the Patent Office, *provided* the invention has not already been the subject of so many patents as to make it absolutely impossible to perform the work for the customary fee. To do this, it is necessary for us to have either a model or a rough sketch or drawing, and a description of the invention and \$5, the cost for making such search. If it is found that the invention is not anticipated by a prior patent, the \$5 thus paid will be regarded as part of our fee in preparing the application for a patent.

If we find that a patent exists for a similar device, the inventor will be so informed, and such suggestions given as will enable the inventor to procure a patent for the parts found to be new and valuable.

As a general thing, this examination will enable us to give a pretty correct idea of the patentability of the article. But in some instances a caveat may have been filed, which is a confidential communication to the Patent Office, and hence not known by any one outside of the officials connected with the Department. There are also cases where a similar device has been rejected, or a similar invention has been publicly advertised or described in some printed publication. But this examination has reference only to the Patent Office records.

The Application—Cost.

If, on examination, the invention is found to be patentable, the inventor is notified, and requested to forward the first installment of \$15. On receipt of this we prepare the papers and forward them to you for signature. When you receive the papers, examine them carefully, sign and acknowledge before a notary public, and return to us with \$20 more. In case no preliminary has been made, you must remit \$25, instead of \$20, on the second installment. The last Government fee of \$20 is not due until the patent is allowed, and after allowance you have six months' time in which to pay it.

In complex cases our fee will be more than \$25, but you will in all cases be notified, when we take the case, what our fee will be.

Model Requirements.

A working model is always desirable for our own use, to enable us to fully and readily understand the precise operation of the machine. Models are not now required by the Office, but the Examiner may, at any time during the progress of the case, demand one. In such cases the model sent us will be used. Should the Office proceed without requiring a model, the one sent us will be held subject to your order. To prevent loss, the model or specimen should always have the name of the inventor permanently fixed thereon.

When the invention or discovery is a composition of matter, the applicant, if required by the Commissioner, shall furnish specimens of ingredients and of the composition sufficient in quantity for the purpose of experiment. In all cases, where the production is not perishable, a specimen put up in form, so as to be preserved by

the Office, should be filed. Ordinary, well known ingredients need not be furnished, unless the Office disputes their operation in the manner as stated by applicant.

Drawings.

The applicant for a patent is required by law to furnish a drawing of his invention, where the nature of the case admits of it. This we prepare.

The Patent Office reproduces from this three several editions of patent drawings which are printed and published—one for Office use, certified copies, etc., of the size and character of those attached to patents, the work being about six by nine and a half inches; one reduced to half that scale, or one-fourth the surface, of which four will be printed on a page to illustrate the volumes distributed to the courts, etc.; and one reduction—to about the same scale—of a selected portion of each drawings, to illustrate the Official Gazette.

This work is done by the photo-lithographic or other analogous process, and therefore the character of each original drawing must be brought as nearly as possible to a uniform standard of excellence, suited to the requirements of the process, and calculated to give the best results in the interests of inventors, of the Office and of the public generally.

The size of a sheet on which a drawing is made should be exactly ten by fifteen inches. One inch from its edges a single marginal line is to be drawn, leaving the "sight" precisely eight by thirteen inches.

All drawings must be made with the pen only, using the blackest India ink. Every line and letter (signatures included) must be **ABSOLUTELY BLACK**. This direction applies to all lines, however fine, to shading, and to lines representing cut surfaces in sections.

The greatest care is necessary in the preparation of these drawings, and the Patent Office requires that they be executed in the highest style of the art. We employ only experienced draughtsmen to perform this work.

The Specification.

By far the most important part of the application is the specification, which is a written description of the invention or discovery, and of the manner and process of making, constructing, compounding and using the same, and is required to be in such full, clear, concise and exact terms, avoiding unnecessary prolixity, as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound and use the same. It must be followed by a specific and well defined claim of the part, improvement or combination which the applicant regards as his invention or discovery. In all applications for patents upon mere improvements, the specification must particularly point out the part or parts to which the improvement relates, and must, by explicit language, distinguish between what is old and what is claimed as the improvement, so that the Office and the public may understand exactly for what the patent is granted; and in such cases the description and the drawings, as well as the claims, should be confined to the specific improvement and such parts are necessarily co-operate with it. The specification must be signed by the inventor, or by his executor or administrator, and attested by two witnesses. Full names must be given, legibly written.

In the preparation of these papers no one is qualified unless he has made it a study for years. Not only should an attorney be well versed in law, but it is indispensable that he should have a thorough training in physics, and be, in addition, fully posted in the advancement of art and science. It is too often the case that inventors find to their great loss that experience in the preparation of these papers is essential. The description must be accurate, but not elaborate, and here it is that so many fail to convey the full gist of the invention, or omit entirely the most important features.

The Claims.

It is in the drafting of claims that the highest order of legal and scientific analysis is required. The claims may be termed the pivot upon which the whole title or right to a patent hinges, and if they are defective the patent is worthless. The mere possession of the patent papers is valueless in case of infringement if the claims are worthless. It must not be too broad, nor should it omit that to which the inventor is really entitled. But not alone in this respect must care be exercised. The exact quantity may be stated in a claim, but in such obscure or uncertain language as to defeat its own purpose; or it may, by careless construction, fail to embody even all the elements that are named. This care and ingenuity cannot be attained except by experience, and we therefore deem it important to allow no one but the most experienced to draw these claims.

CAVEATS.

Any citizen of the United States, or alien, who has resided for one year last past in the United States, and has made oath of his intention to become a citizen thereof, can file a caveat in the secret archives of the Patent Office, and if, at any time, within one year thereafter, another person applies for a patent with which such caveat would in any manner interfere, such application will be suspended, and notice thereof will be sent to the person filing the caveat, who, if he shall file a complete application within the prescribed time, will be entitled to an interference with the previous application, for the purpose of proving priority of invention, and obtaining the patent, if he be adjudged the prior inventor. A caveat need not contain as particular a description of the invention as is requisite in a specification; but still it must set forth a design of the invention and the distinguishing characteristics thereof, and the description should be sufficiently precise to enable the Office to judge whether there is a probable interference when a subsequent application is filed.

NO MODEL IS REQUIRED, and it is only necessary that the inventor should forward to us a rough sketch, with a description, in his own language, of its operation, together with \$25, the amount in full, of which \$10 is the Government fee and \$15 our fee for preparing the papers and drawings. The caveat is good for one year, and can be renewed on payment of the Government fee.

PATENTS FOR DESIGNS.

A patent for a design may be granted to any person, who, by his own industry, genius, efforts and expense, has invented or produced any new and original design for a manufacture, bust, statue, alto-relievo, or bas-relief; and new and original design for the printing of woolen, silk, cotton, or other fabrics; any new and original impression, ornament, pattern, print or picture, to be printed, painted, cast, or otherwise placed on or worked into any articles of manufacture; or any new, useful and original shape or configuration of any article of manufacture, the same not having

been known or used by others before his invention or production thereof, or patented or described in any printed publication, upon payment of the duty required by law, and other due proceedings had, the same as in cases of inventions or discoveries. These patents are granted for the term of three and one-half years, or for seven years, or for fourteen years, as the applicant may, in his application, elect.

Proceedings for Design Patents.

Are the same as for applications for patents. The specification must point out the characteristic features of the design, and the claims must be distinct and specific. The design can be sufficiently represented by drawings or photographs, of which we must have twelve copies unmounted, which should not be more than seven and one-half by eleven inches in size. The Government fees for design patents are as follows: For three and one-half years, \$10; seven years, \$15; fourteen years, \$30. Our fee in either case would be \$15.

TRADE MARKS.

Any person or firm domiciled in the United States, and any person, firm or corporation resident of or located in any foreign country which, by treaty or convention, affords similar privileges to citizens of the United States, may obtain a trade mark under the law of March 3, 1881. To obtain such trade mark patent we require the following:

1. The names of the parties and their residences and places of business.
2. The class of merchandise and the particular description of goods comprised in such class, by which the trade mark has been or is intended to be appropriated.
3. A description of the trade mark itself, with fac-similes thereof, and the mode in which it has been or is intended to be applied and used.
4. The length of time, if any, during which the trade mark has been used.
5. A Government fee of \$25 is required on filing each application. Our fee is \$15 —\$40 in all.

Term of Trade Mark.

The protection for such trade mark will remain in force for thirty years, and may, upon the payment of a second fee, be renewed for thirty years longer, except in cases where such trade mark is claimed for and applied to articles not manufactured in this country, and in which it receives protection under the laws of any foreign country for a shorter period, in which case it shall cease to have force in this country, by virtue of the registration, at the same time that it becomes of no effect elsewhere.

The right to the use of any trade mark is assignable by any instrument of writing, and such assignment must be recorded in the Patent Office within sixty days after its execution, in default of which it shall be void as against any subsequent purchaser or mortgagee for a valuable consideration, without notice. The fees will be the same as are prescribed for recording assignments of patents.

INTERFERENCES.

An "interference" is a proceeding instituted for the purpose of determining the question of priority of invention between two or more parties claiming the same patentable subject matter.

An interference will be declared in the following cases:

1. When two or more parties have applications pending before the Office at the same time, and their respective claims conflict in whole or in part.
2. When two or more applications are pending at the same time, in each of which a like patentable invention is shown or described, and claimed in one, though not specifically claimed in all of them.
3. When an applicant, having been rejected upon any unexpired patent, claims to have made the invention before the patentee.

Where a preliminary interference is declared on matter shown but not claimed in the application last filed, the applicant must, in order to avoid the continuance of the interference, disclaim the invention of the particular matter so shown. The fact that one of the parties has already obtained a patent will not prevent an interference; for, although the Commissioner has no power to cancel a patent already issued, he may, if he finds that another person was the prior inventor, give him a patent also, and thus place both parties on an equal footing before the courts and the public.

The steps required in interference cases are as follows:

1. A preliminary statement of the applicant under oath, showing when he conceived the invention, the date it was reduced to model or drawing, and extent of its use.
2. Taking of the depositions of the inventor and witnesses, and cross examining witnesses of his opponent.
3. Presentation of the case and argument before the Patent Office tribunal.

It should be understood that there is no appeal from the decision of the Commissioner in interference cases, and therefore care should be exercised in employing only such counsel as can give the matter the most careful attention. Our long experience with cases of this character enables us to give valuable advice to our clients.

REISSUES.

A reissue is granted to the original patentee, his legal representative, or the assignees of the entire interest, when, by reason of a defective or insufficient specification, or by reason of the patentee claiming as his invention, or discovery, more than he had a right to claim as new, the original patent is imperative or invalid, provided the error has arisen from inadvertence, accident or mistake, and without any fraudulent or deceptive intention.

Importance of Reissues.

Several features relative to the law of reissues make this an important branch of the patent business, and the preparation of the necessary papers requires more than the usual care and experience. In the reissue application no change or improvement is allowed, and in case such change is made, it must be by a new and separate application.

In all cases of applications for reissues the original claim, if reproduced in the amended specification, is subject to re-examination, and may be revised and restricted in the same manner as in original applications. The application for a reissue must be accompanied by a surrender of the original patent, or, if lost, then by an affidavit to that effect and a certified copy of the patent; but if any reissue be refused, the original patent will, upon request, be returned to the applicant.

Preparatory to obtaining a reissue we make an examination as to the scope and validity of the letters patent, to ascertain if any advantage would arise if it contained

matter subject to reissue. For this we make no charge. Should a reissue be advised, we will at once prepare the case upon receipt of \$50, of which \$30 is the Government fee and \$20 a portion of our fee. Our fees in full, in such cases, range from \$25 to \$50.

DISCLAIMERS.

Whenever, by inadvertence, accident, or mistake, the claim of invention in any patent is too broad, embracing more than that of which the patentee was the original or first inventor, some material or substantial part of the thing patented being truly and justly his own, the patentee, his heirs or assigns, whether of a whole or of a sectional interest, may, upon payment of the duty required by law, make disclaimers of such parts of the thing patented as the disclaimant shall not choose to claim or to hold by virtue of the patent or assignment, stating therein the extent of his interest in such patent; which disclaimer shall be in writing, attested by one or more witnesses, shall be recorded in the Patent Office, and shall thereafter be considered as part of the original specification, to the extent of the interest possessed by the claimant and by those claiming under him after the record thereof.

The cost complete for filing disclaimer will not range above \$20, of which \$10 is the Government fee and \$10 our fee.

APPEALS.

Every applicant for a patent, or the reissue of a patent, any of the claims of which have twice been rejected upon the merits of the invention, may appeal from the decision of the Primary Examiner, in such case, to the Board of Examiners in Chief, having once paid a fee of \$10. For this purpose a petition in writing must be filed, signed by the party, or his authorized agent or attorney, praying an appeal, and setting forth the reasons upon which the appeal is taken.

In these cases it is always found advisable to have oral argument before the Board. He then has the privilege of appealing from the Examiner in Chief to the Commissioner in person, and from the Commissioner to the Supreme Court of the District of Columbia, sitting in banc.

The Government fees are as follows: 1. Appeal from Examiner to Examiner in Chief, \$10. 2. Appeal to Commissioner, \$20. Our fee in either case would depend altogether upon the labor involved.

REGISTRATION OF PRINTS AND LABELS.

By an act of Congress approved June 18, 1874, it is provided that certain prints and labels may be registered in the Patent Office, but in the construction of this act the words "engraving," "cut," and "print" shall be applied only to pictorial illustrations of works connected with the fine arts, and no prints or labels designed to be used

for any other article of manufacture shall be entered under the copyright law, but may be registered in the Patent Office.

By the word "print," as used in the said act, is meant any device, picture, word or words, figure or figures (not a trade mark) impressed or stamped directly upon the articles of manufacture, to decide the name of the manufacturer, or place of manufacture, style of goods, or other matter.

By the word "label," as therein used, is meant a slip or piece of paper, or other material to be attached in any manner to manufactured articles, or bottles, boxes, and packages containing them, and bearing an inscription (not a trade mark), as, for example, the name of the manufacturer, or the place of manufacture, the quality of goods, directions for use, etc.

By the words "articles of manufacture," to which said print or label is applicable by said act, are meant all vendible commodities produced by hand, machinery or art.

To entitle the owner of any such print or label to register the same in the Patent Office, it is necessary that five copies of the same be sent to us with \$16, the cost in full, of which \$6 is the Government fee and \$10 our fee. The certificate of registration continues in force for twenty-eight years.

COPYRIGHTS.

The patent law of July 8, 1870, provides that any citizen or resident of the United States who is the author, inventor or proprietor of any book, map, chart, dramatical or musical composition, engraving, cut, print, photograph, painting, drawing, chromo, statuary, etc., may secure a copyright for a period of twenty-eight years.

The mode of procedure is to record the printed title of the book or printed description of the photograph, etc., in the office of the Librarian of Congress. This must be done before the book or composition is published. Two copies or specimens of the book or composition to be copyrighted must also be forwarded to the Librarian of Congress within ten days after publication. If a work of art, a photograph thereof should be transmitted in the same manner. We prepare such cases and pay all Government fees on receipt of \$4

CANADIAN PATENTS.

It may, perhaps, be unnecessary to call attention to the fact that Canadian patents are, as a rule, as valuable as American patents. They are an energetic, appreciative people, so near to our own borders that they may be regarded as part of our people in customs and manners. American inventors are daily beginning to realize the necessity of procuring patents in Canada. It comprises nine of the British provinces in North America. It is increasing in its manufacturing and commercial interests, and has a rapidly growing population, the census of 1891 showing a total of 4,833,239 souls. The application for the Canadian patent must be made within one year from the time the American patent is issued.

Term of Canadian Patents.

Canadian patents will be granted for a term of either six, twelve or eighteen years, and the applicant may elect the term desired. The holder of a six year patent has the privilege of two extensions, each for a period of six years, thus making eighteen years in all, and the holder of a twelve year patent has the privilege of one extension.

Application for Canadian Patents.

Those desiring to apply for a patent should send us a model or drawing, with a description, the same as in cases of American patents, with the requisite fee for the term desired. The case will then be prepared and returned to the applicant for oath and signature. The FULL NAME of the inventor will be required, and also his occupation. The model must not exceed twelve inches in dimensions.

Manufacturing Patents in Canada.

The Canadian patent law requires that the manufacture of a Canadian patent must be commenced within one year after its issue, or the patent will become void.

Cost of Canadian Patent.

The charges for the same are very reasonable. These charges include everything to insure the delivery of the papers to you, including Government fees and our own, preparing the specifications, original and duplicate drawings, etc., and may be stated as follows: For a six year patent, \$40; for a twelve year patent, \$60; for an eighteen year patent, \$80.

Application After Issue of Foreign Patent.

An inventor who may have obtained a patent for his invention in a foreign country, before applying in Canada, may obtain a patent in Canada if application be made within one year from the date of the issue of the first foreign patent for such invention.

Provisional Protection.

If within three months after the date of the issue of a foreign patent, the inventor gives notice to the Commissioner of his intention to apply for a patent in Canada for such invention, then no other person having commenced to manufacture the same device in Canada during such period of one year, shall be entitled to continue the manufacture of the same after the inventor has obtained a patent therefor in Canada, without the consent or allowance of the inventor.

Expiry With Foreign Patents.

If foreign patents exist, the Canadian patent shall expire at the earliest date on which any foreign patent for the same invention expires.

SHIPMENT OF MODELS.

It is frequently the case that parties forward to us boxes containing models of little or no value, expecting us to pay express charges. A strict and invariable rule compels us to refuse them unless the charges for transportation have been paid or remitted with the letter of instructions.

We also call particular attention to the marking of models, so they can be identified on receipt. Be careful, therefore, to give us not only the name of the inventor, but also the name of the article and address of the party forwarding the same. A little care and thought thus exercised will greatly aid us to facilitate your business.

FOREIGN PATENTS.

American Inventions Abroad.

American inventors have found that patents in European countries are, as a rule, profitable. Foreigners are beginning to appreciate American inventions, and the result of the Exposition at Paris demonstrated that American manufactures are in great demand. The great World's Columbian Exposition was a wonderful incentive to inventors, and demonstrated—what was confirmed at Paris—that the reputation of American inventions is greater than that of any other nation, and, as a prominent European remarked, the “reputation of Yankee inventions in Europe commands for them a greater respect and more certainly insures success than the inventions of our own mechanics.” While all these circumstances inure to the benefit of our inventors, foreign governments generally have reduced their charges, and the cost is materially less than was required a few years since.

Charges for Applications.

The charges hereinafter quoted are for applications which require only ordinary preparation in the way of drawings and specifications. Extra work will, however, be performed at a reasonable additional cost.

Great Britain.

Patents are granted for fourteen years. The cost is as follows: Provisional protection for nine months, \$27.50. Completing the patent, \$45.50. Total, \$73.00. Application for complete patent, \$52.50. Annual payments before the expiration of the fourth, fifth, sixth and seventh year, each \$55.00. Eighth and ninth year, \$77.50. Tenth, eleventh, twelfth and thirteenth year, \$105.00.

France and Algeria.

Patents are granted for fifteen years, subject to the payment of the annual tax and proper working. Cost of patent, including first year's tax, \$52.50. Annual tax, payable before the expiration of each year, \$22.50. The invention must be worked within one year from the date of the patent.

Belgium.

Duration of patent, twenty years. Cost of patent, including first year's tax, \$30.00; second year's tax, \$6.25; third year, \$8.25, and so on, increasing \$2.00 each year to the twentieth, for which the charge is \$42.25. The invention must be worked within one year after date of its commercial working in any country.

Austria and Hungary.

Duration of patent, fifteen years. Cost, in each country, \$55.00, including first year's tax. Taxes for second, third, fourth and fifth years, \$20.00; sixth year, \$25.00; seventh year, \$30.00; eighth, \$33.00; ninth, \$36.00; tenth, \$39.00; eleventh, \$45.00; twelfth, \$52.00; thirteenth, \$58.00; fourteenth, \$64.00; fifteenth, \$70.00. The invention must be worked within one year from date of patent.

Germany.

Duration of patent, fifteen years. Cost, including first year's tax, \$55.00; second year's tax, \$15.00; third year, \$27.50. Yearly increase \$12.50 to the end of the term. The invention must be worked within three years after date of patent.

Italy.

Cost of patent, including first year's tax, \$55. Annual tax, second and third years, each, \$12.50; fourth, fifth and sixth years, each, \$17.50; seventh, eighth and ninth years, each, \$22.50; tenth, eleventh and twelfth years, each, \$27.50; thirteenth, fourteenth and fifteenth years, each, \$32.50. The applicant must elect the term, which may vary from one to fifteen years, and pay the proportional tax. If it be subsequently desired to extend the term, a certificate of prolongation must be applied for before the expiration of the original term. Application should be made before the invention becomes publicly known in Italy. If a patent be granted for five years, the invention must be worked within one year from date of patent. If the term be more than five years, the working must be accomplished within two years from date of patent.

Russia.

Cost of patent, including three years' tax, \$120.00; including five years' tax, \$150.00; including ten years' tax, \$325.00. Duration of patent, three, five or ten years, at the option of the applicant. The invention must be worked during the first quarter of the term of the patent, counting from date of issue, and within six months of the expiration of that term, proof of the working must be furnished to the proper department.

Spain.

Cost of patent, including one year's tax, \$55.00. Taxes for second year, \$7.50; third year, \$9.50. Rate of increase, \$2.00 per year to the twentieth, for which the tax is \$43.50. The invention must be worked within two years from date of patent.

A statement of charges in other European dominions, also in Australia, Mexico, and other countries in which patents can be obtained, will be furnished on application.

Denmark and Iceland.

Patents for five years cost \$75. Always granted. No model. Time, from two to three months. No tax. May be worked by importation.

Sweden.

Duration of patent, fifteen years. Cost, including first year's tax, \$60.00. Nearly always granted. Time required to obtain patent, two to three months. No model.

Norway.

Duration of patent, fifteen years. Cost, including first year's tax, \$60.00. Time required to obtain patent, two to three months. No model.

Portugal and Colonies.

Duration of patent, from one to fifteen years. Cost of one year patent, \$98.00. Five years' patent, \$125.00. Ten years, \$185.00. Fifteen years, \$225.00.

British India.

Duration of patent, fourteen years. Cost, including four years' taxes, \$75.00.

Greece.

Duration, three to fifteen years; cost, from \$250 to \$2,500. Granted only by legislature, and very doubtful. No model.

Mexico.

Duration of patent, twenty years. Cost, including all taxes, \$160.

Switzerland.

Duration of patent, fifteen years. Cost, including first year's tax, \$45.

New Zealand.

Provisional protection nine months, \$20. Duration of patent, fourteen years. Cost, including four years' taxes, \$62.50.

Victoria.

Provisional protection nine months, \$20. Duration of patent, fourteen years. Cost, including three years' taxes, \$65.

New South Wales.

Provisional protection twelve months, \$25. Duration of patent, fourteen years. Cost, including all taxes, \$70.

Queensland.

Provisional protection nine months, \$25. Duration of patent, fourteen years. Cost, including four years' taxes, \$70.

South Australia.

Provisional protection twelve months, \$25. Duration of patent, fourteen years. Cost, including three years' taxes, \$65.

Western Australia.

Provisional protection nine months, \$30. Duration of patent, fourteen years. Cost, including four years' taxes, \$100.

Tasmania.

Provisional protection nine months, \$20. Duration of patent, fourteen years. Cost, including three years' taxes, \$95.

SUMMARY OF UNITED STATES PATENT FEES AND ATTORNEY'S FEES.

| | GOV. FEE.* | ATT'Y FEE. | TOTAL |
|--|------------|------------|---------|
| Design patent for 3½ years..... | \$10 00 | \$15 00 | \$25 00 |
| Design patent for 7 years..... | 15 00 | 15 00 | 30 00 |
| Design patent for 14 years..... | 30 00 | 15 00 | 45 00 |
| On filing every caveat..... | 10 00 | 15 00 | 25 00 |
| On filing application for patent..... | 15 00 | 25 00 | 40 00 |
| On issuing each original patent (<i>final Gov. fee</i>)..... | 20 00 | | |
| On filing a disclaimer..... | 10 00 | | |
| On filing every application for a reissue..... | 30 00 | | |
| Filing application for division of a reissue..... | 30 00 | | |
| Filing every application for an extension..... | 50 00 | | |
| On the grant of every extension..... | 50 00 | | |
| Appeal from a primary Examiner to Examiners in Chief..... | 10 00 | | |
| Appeal to the Commissioner from Examiners in Chief..... | 20 00 | | |
| On depositing trade mark for registration..... | 25 00 | 15 00 | 40 00 |
| On depositing a label for registration..... | 6 00 | 10 00 | 16 00 |
| For certified copy of a patent, for every 100 words..... | 10 | | |
| Recording assignment of 300 words or under..... | 1 00 | 1 00 | 2 00 |

RULES GOVERNING PATENTS

WHICH EVERY APPLICANT SHOULD KNOW.

* To make experiments, then drop them, and only recur to them when another and later inventor has made a success of the idea, makes them "abandoned experiments." Mere delay, where neither public use nor grant of patent to another has intervened, cannot work abandonment nor forfeiture. To make a machine and then lay it aside to make another on a different plan, makes the former an abandoned experiment.

Mere assemblage of parts does not constitute combination; the parts must co-operate. Merely to use two processes in conjunction can not be considered invention. One part is not in patentable combination with another when each performs its duty just as it would if the other were not present.

A thing is not a new article of manufacture, simply because it is produced by novel means. An article of manufacture may be patentable in that it is produced cheaper than the old device, or that it works better. An article of manufacture must be complete in itself.

The Office will not issue patents to the assignee unless request is made to that effect. An assignment of future inventions is an executory contract, to be enforced only by courts of equity.

An inventor is bound by the acts of his attorney. The Office can not be responsible for the blunders or incapacity of attorneys. An attorney who presents an application for patent simply to delay the issuance of another's patent, or to injure and annoy another applicant, will be disbarred for gross misconduct.

When a patent is granted without the required notice to a conflicting caveat, the caveat's rights are not forfeited. What is called a renewal of a caveat is in legal effect a new and independent caveat. Filing a caveat raises a presumption that the invention was not then complete. One of joint inventors may lawfully file a caveat on the joint invention.

A claim for a principle, or a law of nature, can not be allowed. Applicants may describe several species of a genus, and make a generic claim to cover all. He may also cover one species under the genus, but no more, in one patent. A feature of a mechanical device described in the specification, but not shown in the drawings or model—when it is capable of illustration—can not be claimed. The words "substantially as described" have no force in a claim not distinctive without them. Certainty is required in claims. Mention of a part by letter in a claim is a restriction to the described device. When the thing claimed can only be distinguished from something else by the words "substantially as described," it is not definite enough to be allowed. A feature applicable to different forms may be broadly claimed. Though certain elements have been combined to produce a certain result, yet a combination of the same elements to produce another result is patentable, and is not an objection to the claim that the prior mechanism meets its terms. Application can not, in the same patent, claim more than one form of different, equivalent constructions.

A new combination of old elements, the conception of which involves the exercise of the inventive faculties, though no ingenuity is required to carry it out in practice, is patentable. A new combination is not formed by substituting for one element thereof a mere equivalent of such element. An element of a combination modified into a new form, producing a new and useful result, or a better result, and the modification not being mere mechanical skill, is not a mere equivalent for the old element. The elements of a combination may all be old, but each part must perform some new function of which it was previously incapable. Combined implements which use certain parts in common, and so save the expense of duplicating, are patentable combinations. Distinct mechanisms "producing, by their co-operation, results of a very useful and important character," are legal combinations, and not aggregations.

The mere reversal of the operation of a device, accompanied by a change which would follow as a matter of course, is not invention. The results of mere skill are not patentable.

In a patent for a compound or a composition of matter, distinct claims can not be allowed for parts less than the whole. The claim for a compound of known ingredients must specify them.

Utility, as well as ornament, may form the basis of a design patent. The doctrine of (artistic) equivalents applies to designs. Design patents may have plurality of claims. Trade marks can not be covered by design patents. In mechanics, a patent calls for the exercise of constructive genius. A design patent calls for the exercise of creative genius. A design patent for the form of an article does not bar a subsequent patent for its construction.

The application of an old device to a new purpose, simply analogous to its old purpose, is mere double use. Using a well known article for a well known purpose, though the particular article and the particular purpose have never before been brought together, is not invention.

As between employer and employee, the former is not to be considered the inventor from such relation merely. An employer is not entitled to any knowledge of the independent inventions of his employee. An inventor may avail himself of the services of skilled laborers, and suggestions and improvements coming from them are to be considered part and parcel of the original invention. A skilled artisan, whose mechan-

ical talent avails to embody another's conception, is not an inventor as against the conceiver. An inventor has full right to employ the skill of others in embodying an invention.

In interference the burden of proof is on the later applicant to show that he made the invention before the earlier applicant, and to show reason for making delay in application. Expert evidence is admissible to prove facts in opposition to an examiner's assertion.

When an applicant seeks letters patent for an invention which has already been patented by him abroad, his American patent, if issued, will be limited to seventeen years from the date of the grant of the foreign patent.

"Invention," within the meaning of the Patent Law, is the conception of some new and useful thing, and the embodiment of that conception in a practical form. The true date of invention is at the point where the work of the inventor ceases, and the work of the mechanic begins. A simple invention is fully complete when the inventor has illustrated it, and communicated it to others.

A machine and its product can not be claimed in the same application. Separate machines, all useful to one end, but independent in action, can not be joined in one application.

The Office can not issue a joint patent to two parties and a separate patent to one of them for the same invention.

Trade marks can not be registered as labels. Fanciful figures are not registrable as labels. A label bearing a trade mark can not be registered till the trade mark is registered.

A model is not always reduction to practice, complete embodiment for use is necessary. The model (when furnished by request of Patent Office) must always conform with the drawings and specification.

Signing papers in blank is moral perjury, and knowingly presenting them to the Office is gross misconduct.

Where the only element of novelty is an indefinitely variable distance, there is not the certainty requisite to support a patent. "Perpetual motion" devices will not be patented. Adulterations of food are not patentable.

A printed publication, no matter what it recites, is not evidence of the existence of the described invention prior to the issue of the publication. Such "prior publication" must show the invention clearly and conclusively. Thus, a pattern book, without descriptive matter, is not a prior publication. Prior use and knowledge abroad can not affect a United States patent.

A process which is old can not be patented, though a new result of its application may be.

No distinction is made—in the matter of public and common use—between use by the inventor, or with his permission, and use by strangers. A public use is a use in public, and a single, well authenticated instance proves public use. Public use and sale for more than two years before application is fatal to the applicant.

A reduction to practice may be effected by means of an experimental working machine as well as in any other way. All depends on the result of the experiments. If the result is a failure, the experiment goes for nothing. If the result is neither a failure nor a success, the experiment also goes for nothing. If the result is a success, the work is a lawful reduction to practice.

No matter can be interpolated into a reissue which is not found in the specification, model or drawings of the original patent. Drawings or model may be amended each by the other, and the specification may be amended by either.

An inventor is entitled to all the benefits of his improvement, whether he anticipates them or not.

A specification and claim must describe the invention with such particularity that one may know what is claimed.

A trade mark is an arbitrary character without ordinary signification. A trade mark may be forfeited by a non-user. Where a name, originally a trade mark, has gone into common use, and has come to denote a particular shape or kind of article, it can not be reappropriated.

Utility, in the eye of the Patent Law, refers rather to a utility of purpose than a utility of means. The merit, more or less, of an invention, as compared with existing devices, is a question with which the Patent Office has nothing to do.

NOTE ON FOREIGN APPLICATIONS.

We are prepared to attend to business, of whatever nature, relating to foreign inventions, and have connections in all countries. We have at all times blank forms for obtaining foreign patents, and any advice desired in relation to obtaining patents abroad will be promptly furnished by application to our Home Office.

SALES DEPARTMENT —OF THE— AMERICAN PATENT AGENCY.

HOME OFFICE:
73 W. FIFTH ST., (Fountain Square,) CINCINNATI, O.

O. J. BAILEY, Gen. Manager.

ESTIMATES OF SALABLE VALUE FURNISHED ON APPLICATION.

With Branch Offices and Agents in

| | |
|-----------------------------|-----------------------------|
| Philadelphia, Pennsylvania. | Springfield, Massachusetts. |
| Jacksonville, Florida. | Newport, Rhode Island. |
| Montgomery, Alabama. | New Haven, Connecticut. |
| Jackson, Mississippi. | New York, New York. |
| New Orleans, Louisiana. | Buffalo, New York. |
| Galveston, Texas. | Utica, New York. |
| Atlanta, Georgia. | Albany, New York. |
| Dallas, Texas. | Trenton, New Jersey. |
| Clarksville, Tennessee. | Pittsburg, Pennsylvania. |
| Chattanooga, Tennessee. | Baltimore, Maryland. |
| Louisville, Kentucky. | Richmond, Virginia. |
| Paducah, Kentucky. | Lynchburg, Virginia. |
| Cleveland, Ohio. | Wheeling, West Virginia. |
| Indianapolis, Indiana. | Raleigh, North Carolina. |
| Springfield, Illinois. | Columbia, South Carolina. |
| Kansas City, Missouri. | Charleston, South Carolina. |
| Des Moines, Iowa. | Omaha, Nebraska. |
| Detroit, Michigan. | Leavenworth, Kansas. |
| Milwaukee, Wisconsin. | Denver, Colorado. |
| St Paul, Minnesota. | Virginia City, Nevada. |
| Montpelier, Vermont. | Salt Lake City, Utah. |
| Concord, New Hampshire. | San Francisco, California. |
| Boston, Massachusetts. | Augusta, Maine. |

And more than a thousand others all over the United States who have arranged to handle any business in their immediate vicinity which we may intrust to them.

We claim that this is the only Agency in America for the sale of patents that has *bona fide* permanent agents in all the principal cities of the United States.

Legitimate Agencies.

During the past two years a number of patent agencies have sprung up in different parts of the United States, so that, to-day, an inventor has no sooner had his patent allowed than he is flooded with circulars from the different agencies, showing immense facilities, and how much it would be to the patentee's interest to place the patent for sale in the hands of the aforesaid agencies—some asking five dollars advance fee, others ten dollars, and some fifteen dollars, but rarely over that amount, as they think that, before the inventor would risk over that amount, he would likely make inquiries as to their standing and responsibility.

The consequence has been that a great many have sent the amount demanded, with their models, and have never heard of their patents again, not even having the models returned; and it is no wonder, therefore, that agencies are now looked upon

as humbugs and with suspicion, and that patentees have no inclination to do business with any of them, but keep their models and papers at home. Since nine out of every ten inventors, from pecuniary and other causes, are unable to put their patents on the market and before the public in the right manner, their patents get old, and they never realize from them. Thousands of valuable patents have never yielded inventors anything for this very reason. The question now arises, "What ought the inventor to do?" The answer is plain: Protect yourself at the start, and not "lock the stable door after the horse is gone." In other words, *make the proper inquiries as to the standing and responsibility of such agencies.* Find out if they really have the facilities they claim. This can be done to a certain extent through parties for whom they claim to have done business, or through their references.

An honest and legitimate agency will not avoid an investigation, but rather court it, since such a course must necessarily in the future greatly redound to its advantage, if dishonest firms are prevented from gaining a foothold. Investigation means security to inventors and justice to reliable agencies.

The success of the American Patent Agency for over a quarter of a century has induced several agencies to copy part of our printing and imitate our circulars, and one agency in the West had the impudence to copy our circulars entire. Even at the present time, certain parties in the West are sending out copies in imitation of our circulars, soliciting business without the faintest intention of ever doing what they promise. These parties can not, of course, make a copy of **THE WORLD'S PROGRESS**, since none of them have sufficient means to issue a number, but they get up a mass of references, agents, branch offices, etc., and it is not at all surprising that the patentee should be bewildered and afraid to do business with any of them.

Investigating Patent Brokers.

No doubt it is to the interest of all inventors that there should be some agency in the country that is responsible and reliable, and one that will put patents on the market in the proper manner, because an individual with a patent, as hundreds of inventors can testify, after paying for printing bills, traveling expenses, hotel bills, loss of present business and time, can not be expected to do this work as cheaply or as quickly as an established agency with experience and facilities at its command.

In view of the fact, therefore, that these irresponsible houses, to which we have alluded, have not only fleeced inventors, but created a want of confidence in those who are attempting to build up a legitimate business upon business principles, we ask you as sensible men to adopt such a plan in placing your patents on the market as will assure you that the agency in which you repose confidence is just what it is represented to be. We have a reputation at stake in this matter, being the publishers of **THE WORLD'S PROGRESS**; and as an earnest of our efforts in this direction, we have repeatedly published these frauds, and there are others who will receive like attention.

Selection of Patents.

It is true that ALL patents can not be sold, and our judgment of what is salable may sometimes be at fault, but whenever a patent is not sold, we lose money by the operation, and it is therefore proper for us to be prudent in the selection of patents for the market and in using our best endeavors to make sales. This we cannot do if high prices prevail—the great stumbling block preventing the success of many patents.

High Estimates by Agencies.

Knowing that patentees are naturally enthusiastic when they receive their patents and are prone to believe that there is in them an immense fortune, some unprincipled, so-called patent agents tickle the cupidity of patentees by making very high estimates, with the belief that by so doing they will the more easily and surely secure a small advance fee, the sale of the patent really being no part of their calculations.

Age of Patents.

We especially call the attention of inventors to the fact that, after a patent is over five or six years old, if not manufactured or otherwise operated, it loses its marketable value very rapidly, and is difficult to sell, however practical the invention may be. This holds good universally if the desire is to sell territory, and all careful purchasers invariably grade the value by the time they have yet to run, as well as count the chances of new patents having been obtained in the meantime for like articles. There must be some inducement to show a profitable margin as well as assurance that they will get back their original investment.

Straightforward Representation.

Finally, we do not ask business from you to the exclusion of others, unless merit dictates. We are ever ready to explain our advantages, and prove all the facilities which we claim in this pamphlet. There is no inducement in the least for us to mislead, and whatever business is intrusted to our care will be done **OPENLY, HONORABLY and PROMPTLY.**

The Cause of Prejudice Against Patents.

That, at the present day, it is difficult to sell patents, and that there is a strong prejudice not only against patent agents, but patents also, would be useless for any one to deny. No matter how important or valuable the invention may be, there is a disposition on the part of the public to be very careful how they invest. It is true that the "hard times," in a great measure, operate against sales; still, that is not the main cause and great obstacle in the way of making sales. The difficulty lies with inventors themselves, as well as with a class of men who perambulate through the country selling rights, who do not care what representations they make so long as they are able to make sales.

The first Step.

At first, when the would-be patentee has his idea perfected, and has demonstrated that it will work practically, he considers about taking out a patent, and, although the cost in this country is only comparatively a small sum, he hesitates, and brings up the question, "Will it pay, and can I afford to risk the money to get a patent?" He finally makes up his mind affirmatively and offers the application. No sooner does he get his patent allowed than his ideas change, and, with few sensible exceptions, asks from \$25,000 to \$100,000 for an invention on which a month before he hesitated to risk a few dollars to secure a patent.

What Shall Be Done With the Patent?

Few, if any, patentees have any definite idea of the course they will pursue after they get their patents. Some have obtained their patents with a view of manufacturing, but a great majority are immediately in the market for sale. Many patentees are needy and many are compelled to make quick sales, if possible, and the important question arises: "*Shall I attempt its sale myself, or intrust it to an agency?*" This is an important thing to decide. The patentee has had no experience, his training, location and surroundings are against him and the consideration of dollars and cents stares him in the face. It is no light task for an inexperienced man to take the responsibility of negotiating the sale of a patent. Where shall he go? To whom apply? What steps are necessary to speedily bring it to the notice of a patent buying public?

Management.

There are thousands of valuable inventions that have only had a glimpse of light, owing to bad management in putting them before the public.

The value of an invention depends almost wholly upon whose hands it is in. To illustrate this, we mention a case which came under our observation in this city. Years ago a party bought a patent and commenced manufacturing the article. After several years of labor and endeavor to operate without the aid of advertising, and withholding the goods from public knowledge, he became discouraged, gave up his business and never attempted to do anything with it until some six months ago, when he almost gave it away to get rid of it.

The parties who bought the right are men of energy and business qualifications, and to-day are not only making a large profit from manufacturing, but have sold enough territory outside to doubly repay them for the investment.

Some inventors think there is so much merit in their ideas that it will shed its own light over the world without exertion on their part, or advertising the same in some form, or giving it the energy or patience necessary to make successful sales. They find, too late, that they have lost the golden opportunity, and that the time has gone by to realize from it.

Inducing Capitalists.

To induce capitalists to buy, it is necessary to show them margin enough to enable them not only to make a good profit on manufacturing the article, whatever it may be, but also profit sufficient to enable them to make the money first paid for the patent, outside of the profits on manufacturing. Without the capitalist can see this, of course he can not be expected to buy, as there would be no inducement to invest in a patent which is regarded as an experiment until the purchaser is reimbursed.

How Value is Produced.

Patents are still valuable and find buyers, when the improvement is good and the inventor puts his prices at reasonable figures, but at fancy prices a sale can not be made. Until the patent is sold it has only imaginary value. It is only when the inventor disposes and realizes that he knows what the invention is worth to him in dollars and cents, and no invention is worth more than it will produce. Of course, when we say produce, we take it for granted that the patent is in the right hands, and has been given proper publicity and the attention which it deserves.

The Value of Patents.

That an invention in a financial sense is worth no more than it will bring in dollars and cents, is a proposition that no one will deny; and that the value of the patent is what can be realized from it, and no more, no matter what the intrinsic merit of the invention may be, is plain; then naturally follows the question, what is the best means of reaching the desired point of realizing the value of an invention.

How to Gain Publicity.

Publicity and personal attention, nine times out of ten, will bring the proper return, but to do this the inventor must have considerable means, besides devoting his whole time. As a general thing, inventors, as a class, are not moneyed men, and also have their time occupied. For an individual to work up the sale of his patent would require money for traveling expenses, hotel bills, printing and newspaper notices in the different regions canvassed by him. This would soon amount to two or three thousand dollars, without a certainty of a sale at last, so to the "poor inventor" the gates are closed to that road to wealth. The question now is, what is the next best method of reaching the desired end?

The Surest Way to Proceed.

We are satisfied that the best and surest way to advertise the patent so that capitalists abroad can be informed as to its merits and become interested in the invention, for inventors, with a few exceptions, are like prophets, "without honor in their own

country," and the chances, "judging by sales generally," will be made easier outside of the particular locality in which the inventor lives. To attract the attention of those who have means to buy, there is no medium like the "newspaper," especially one devoted to mechanics, arts and science generally. By making the description lucid and clear, and at the same time interesting, the attention of the reader is held, and he readily forms an idea whether it can be made profitable. From the conclusion he draws he makes inquiries and opens negotiations. After the parties are found who think favorably of the patent and wish to purchase, the battle is gained, the expense of personally seeing those who wish to buy, and closing the sale is comparatively small, and in case the patentee's time is occupied, all negotiations can be made and closed through some responsible agency.

How to Sell Patents.

There is no branch of industry in the United States which is more susceptible of abuse; or liable to misconception, than the business of selling patents. We propose to give our views on this subject, and frankly present to your consideration a few reasons why we claim superiority in the manner of handling patents.

A vast number of patents are issued weekly, and among them many which are of the greatest value, not only to the public at large, but to the inventors themselves. It can not be gainsaid that many fail to pay their originators for the time, labor and means employed.

Energy Required:

A study of successful patents confirms us in the belief that not only the intrinsic merit and wide-spread value of these inventions give them their remunerative feature, but that there is something still more potent which enables inventors to realize from their products. Morse was not the first to demonstrate the feasibility of transmitting messages on wire, *but he was the first to bring a thoroughly practical invention for this purpose to the notice of the public*, and the history of his enterprise shows what delays and vexations he had to undergo before he was successful.

Howe was not the first inventor of the sewing machine, but he invented a new and practical means of producing stitches by machinery, and, after years of suffering and privations, witnessed the success of his invention. So with others of our greatest inventors. The history of their lives is pre-eminently the history of *energy and tact*. All the avenues of industry and science are so zealously guarded that no one need flatter himself that he will stumble into a fortune on account of his ingenuity, or reap a rich harvest on account of the blundering judgment of others. It is best to be honest and open in these matters. People are becoming careful on the subject of patents. A highly practical and novel invention is no index to its financial value unless *business shrewdness and energy accompany it*.

Inventors Not Salesmen.

Not every one is competent to sell patents. It is a business requiring peculiar talent and knowledge, and it is no argument to say that, because a man is a good inventor, he is therefore a good salesman. Indeed, the testimony of patentees, with few exceptions, is that patents are hard to dispose of at remunerative rates. Therefore, in looking over this vast branch of industry, and recognizing its great defect, we are led to the conclusion that a suitable agency, through which inventors can transact their business, is desirable, by which they may be enabled to bring their inventions to the notice of capitalists more favorably than by mere private means. When an inventor obtains a patent, the first query in his mind is: How shall I sell it?

Professional Advisers.

Patentees, as a class, have been in the habit of receiving more prolific and gratuitous advice than any other class of people in the country. As a result of this advice, the simple question, "How?" is further than ever from them, as a practical reality.

A set of professional advisers are ever ready to dish up stereotyped answers, while they, upon investigation, are generally found to be as inexperienced as those to whom they seek to impart wisdom.

There are men always ready to say how a thing should be done, but are unable to do it themselves. Mills can write a logical and elaborate essay on the economy of wealth, but is unable to audit his own butcher's and baker's bills. Some of the noblest sentiments of purity were conceived and fashioned by Edgar A. Poe, but the memory of them is the only monument over the grave of the inebriate poet.

Unprofitable Advice.

We can conceive how such things may be possible, but, after all is said, it becomes necessary that the man to whom this advice is given should be capable of performing the task. The veriest spendthrift may be able to tell you that economy is the road to wealth, but unless you have the mental capacity to economize, you may be as unfortunate as your spendthrift adviser. It may be good advice to say that the only way to sell a patent is to put it on the market, get customers for it, and—sell. (If any other method has ever been proposed by these professional advisers, we have yet to see it.) But patentees want to know how to place their inventions on the market, and how to get customers.

Inexperienced Inventors.

Many inventors, through lack of experience, are not acquainted with the channels of the patent trade, and are often misled by designing persons to intrust their inventions into the hands of incompetent men. The result is, months and years pass away and nothing feasible is done in the way of bringing the invention to public notice.

Our first proposition is, that to be a good salesman, a knowledge of the business is necessary; and, in the second place, practical experience and tact. These two elements, theory and practice, are indispensable. This fact applies to every branch of trade, and is so apparent that to argue it would be useless.

Characteristics of Salesmen.

Suppose we compare the characteristics of two good salesmen, in any line of business. In the case of one, his method may be plausible and confiding, minute in detail and careful in representation. He seeks to win rather by force of reason than by taking advantage of circumstances. He is an apt judge of human nature, pliable enough to fit the exact mold of his customer, and politely persuasive. The other is bold and independent, reckless in assertion, and apparently averse to the confidence of others. The small matters of detail are too insignificant for his attention. Bravado is more effective, because used more naturally. Cunning is one of his characteristics, and frankness the best cloak for it. It would be an utter impossibility for either of these men to assume and play the role of the other. Both are good salesmen; but we desire to impress the idea that each man has his peculiarity of temperament. This constitutes his tact, and, when properly combined with experience, will succeed in making a good salesman of any man who has the two essential elements—patience and perseverance.

Inventing and Selling.

Now, we ask, how many patentees have the qualifications we have described? The business of selling patents is an entirely different thing from producing inventions. It is folly to say that because a man is a good inventor, he is therefore a good salesman. The experience of so many patentees has, we think, fully demonstrated this fallacy. We are candid in the opinion when we say that the only way inventors can secure the reward for their ingenuity is to intrust the sale of their patents to some good, responsible party to secure negotiations. It will generally be found to be less expensive to them in the end, and avoid endless trouble and annoyance.

Poor Inventors.

We are aware that the great body of inventors are poor; therefore not in a position to visit the leading manufacturers, and come in contact with moneyed men, who would invest in some staple patent. Advertising alone will accomplish nothing, unless backed up by persistent and consistent representation. We, therefore, take advantage of both these methods, believing them to be the only safe and reliable means to successfully introduce inventions.

New Patents Most Valuable.

We here urge what we have often repeated to inventors, that the most valuable time to place a patent on the market is during the first year after its issue, and we firmly believe that nine-tenths of the patents profitably disposed of, are those which were energetically handled during that period. The reason for this is apparent. New inventions are constantly being brought to public notice, and so abundant is the opportunity, and so large the field for improvement, that no inventor can feel himself safe in the fancied monopoly of any particular sphere of ingenuity.

Age Impairs Value.

From the fact that capitalists are prone to look with distrust upon patents of two and three years' standing, and it is natural that they should, when we consider that in the business world men are generally captivated by those articles which command the readiest sale, time always being regarded an important consideration in selections for business operations.

Location Important.

The patentee, in the majority of cases, is not in a favorable location to transact the business pertaining to his invention. Our large manufacturing marts are generally conceded to be the most desirable, in a business point of view, and this applies with equal force in the selection of a market for a patent. In many cases, however, patents are more easily disposed of in locations suited to the development of the particular branch of industry to which the invention pertains.

County Rights Not Sold.

We do not refer to that particular class of patents that are sold in country neighborhoods, among farmers and others, for farm, township, shop, or county rights. We have no time or means to "huckster" rights in that way. We seldom sell less than a State right, and we consider no proposition from parties who desire us to sell in that manner. There are parties who make it a specialty to "farm out" patents, to whom we sell rights in a body, and who are generally designated among patent men as "small brokers."

Personal Solicitation Most Effective.

No system of selling patents is effective that does not use, as its chief means, the agency of *Personal Solicitation*. As before intimated, this, in connection with a judicious system of advertising, is the only reliable method by which a patent can be speedily disposed of. Recognizing these two means as the index to a successful agency, we employ them to the exclusion of all others; and to fully carry out the plan indicated, we have fitted up our office for the exhibition of all patents intrusted to our care, where they can be readily inspected by customers. We employ competent and

Reliable Salesmen

For the purpose of fully presenting the merits of the different inventions on exhibition, and to whom are intrusted the details of all patents in their various departments. We also employ trustworthy agents, whose business it is to personally solicit

sales in various parts of the country, and who distribute circulars among that class of people most likely to invest in patents. To do this judiciously and with advantage to the patentee, as well as to ourselves, requires prudence and a thorough knowledge of the business in hand. We, therefore, select only such men as have proved themselves, by association and experience, to be fully competent.

Suggestions as to Prices.

We here desire to allude to one great error into which many inventors are liable to fall, and which frequently precludes all chances of sales. There are those who insist upon placing too high a price upon their patents. They fail to see that other people do not always look upon patents in the same light as they do themselves. They conceive fabulous prices, upon which they hang their hopes and fail to be guided by the experience of others. Misfortunes overtake their eager longing for sudden wealth, and they are at last doomed to bitter disappointment. We warn our friends against this course. You can afford to be reasonable with the products of your ingenuity. Frankly speaking, that era in our mechanical history which yields its hundreds of thousands and its millions for a single patent has passed away. We have just entered the threshold of a new period, in which inventors will be more generally rewarded, and the world at large derive more substantial benefits. In view of the fact that a patent is often placed at a prohibitive price, we have resolved not to undertake the sale of a patent unless at such prices as we may deem it reasonably certain that a sale can be effected within the specified time.

It is true that there are numbers of parties, all over the country, who profess to be able to sell everything that is brought to them. If they are practical men, and have a knowledge of the business, common honesty will tell them that it is an impossibility. Any man who will undertake the sale, careless as to price and regardless of the nature of the patent, is either a novice in the business or is unworthy of your confidence. Deal only with well known and reliable parties. Such firms have a reputation at stake, and are interested, as well as yourselves, in doing justice.

Time Required.

The usual time for which we make contracts is ninety days. In some instances sales can be effected in less time, but we take no contract for less than ninety days, unless for special reasons, because we do not believe any one can of a certainty thoroughly work up sales within a shorter period to an advantage. We aim to obtain the highest possible prices, and to do that requires TIME.

Power of Attorney.

We do not ask for, nor will we accept, a power of attorney. When sales are made, the deeds, properly drawn up, will be sent to the patentees, who will then sign them and return to us per express, C. O. D., that is, collecting on delivery the specified amount in the deed, after deducting our commission from the amount of the sale. *By this plan patentees will at all times have entire control of their own interests.* We do not insist upon being made sole agents of the patentee, but he is permitted to make any arrangement independent of us.

OUR TERMS FOR UNDERTAKING THE SALE OF PATENTS.

We charge no advance fee for imaginary services, and have always aimed to introduce patents at the least possible expense to patentees. As every patentee knows, good business management is necessary to properly introduce any patent, however

valuable it may be. One of the most important steps to insure success is the printing and proper distribution of descriptions relating to the invention. Capitalists and speculators must be hunted up and appealed to, and they can be found only through a wide cast distribution of circulars or other printed matter, in connection with a *thoroughly organized system of personal solicitation by practical salesmen*. This will make the introduction and sale of patents an accomplished fact, if it can be done at all. To employ these men requires a cash outlay, which is met by our commission on sales, and which expense we in no instance require patentees to pay. When we add to this the cost of model transportation and expense for stamps, clerk hire, rent and other incidentals too numerous to mention, it is plain that the introduction of a new invention, in such a manner as to attract the attention of capitalists in all parts of the country, must necessarily be attended with a large cash outlay before a single sale is effected, and with all the risk of failure or success upon our shoulders.

For a single individual to command such facilities, operating with only a single article, would, at the start, require a larger sum of money than could be obtained for the whole patent. In view of the fact that, even with the facilities at our command, we can not bring the attention of capitalists and speculators to our patents without circulars or other means, we therefore expect inventors to pay for the necessary printing, and also for such descriptions as will enable us to properly place the patent in the market, here and elsewhere. The cost for printing such circulars and descriptions will be given on application, and in *no case* will other charges be made for services except the

Commission on Sales.

Our commission on sales effected will not be more than 15 percent, which, although low, taking into consideration the attendant expense, will enable the inventor to put his patent on the market in a cheaper, more expeditious and safer manner than at any time in the past. An extended experience has taught us that no reliable agency can negotiate sales for less than 15 percent, unless under specially advantageous conditions, and we will not consider propositions from parties at a less rate.

If parties are not willing to put their patents on the market in such a manner as to insure success, we do not wish to deal with them. We are ever willing to make our *compensation* contingent upon our success, but we are not willing to pay for the cost of printing in addition to the still greater expense of agents' salaries and expenses, since the circulars will be at the command of the patentees themselves, and the advantages of these circulars finally accrue to their benefit, whether only one State is sold, or one-half of the States.

Mode of Procedure.

If you desire to put your patent in our hands for sale, send us the drawings and specifications of your invention, if you have one, stating the amount you ask for the invention, by States and as a whole. Upon receipt we will examine the same, and if we think it an undesirable invention to place in the market, we will return the drawings and specification. If we consider the invention feasible, and think the figures are too high, we shall take the liberty to suggest such prices as experience has taught us to be most reasonable. If satisfactory to you, we will then send you duplicate copies of contract for signature, upon receipt of which you will sign both of them, retaining one and sending the other to us, and we will at once take the necessary steps to put the patent into the market.

Models.

In all cases where you have a model, or more than one, send them to us. We can always make quicker and more satisfactory sales by having an article on exhibition. Many inventions absolutely require a model for representation before a sale can be effected. All models must be sent to us *expressage prepaid*; otherwise we will not

receive them. We do not belong to that class of agents who can make sales without models, and where parties will furnish us a number, we can use them to good advantage. These models are held by us or our agents subject to the order of the patentee, and we will, at any time after the expiration of the contract, return them. It is the aim of the office to use the models with care and discretion, and agents are so instructed in handling them, but we can not be responsible for the damage or breakage of models that have been consigned to our care, if such damage was caused by exhibiting them to customers, or by shipping from place to place.

Suggestions for Transacting Business.

We suggest the following as rules for transacting your business:

1. If you have a patent, first determine how you will operate it, whether by selling territory, or by manufacturing it yourself or on royalty.
2. In the event you decide to sell the territory and intend to secure agents, write to parties who are engaged in the business and ascertain their standing and reliability. *This course can injure none but irresponsible agencies, and is no more than justice to yourself.*
3. Indicate what your price is for State rights, or for the territory as a whole. Have some price, whatever it may be. Your opinion is worth something.
4. State, as near as you can, what it will cost to manufacture your article; also selling price.
5. Give the advantages arising from its use, or the extent of its sale, if it has been introduced, and such other information as may aid in determining its probable salable value by territory.
6. *Be very particular to make your letters as short as possible and to the point.* We have neither the time nor inclination to pore over long letters, nor is it necessary that we should do so to form an idea of the salability of a patent.

We want those with whom we transact business to thoroughly understand our method and requirements, and to do this we ask you to carefully read over the foregoing pages relating to the sale of patents.

GUIDES FOR ESTIMATING THE VALUE OF PATENTS.

Probably nothing in the patent business is so hard to determine as a basis for the valuation of territorial rights. We have always contended that population is no true basis for valuation, for while in many cases, such as domestic articles, this might apply, yet there are other elements which far more than outweigh the supposed conditions of a similarity in all communities. Thus, for instance, mechanical contrivances of the higher order, such as mathematical instruments, surveyors' apparatus, steam engines, etc., etc., the East is more valuable; for agricultural implements, the West. Then, there are such inventions as appertain solely to the South, among which we may name the cotton gin, seeders and presses. Besides this, it must be taken into consideration that very many inventions are not of such a nature as to make sales of territorial rights a possibility. They usually belong to the larger and more expensive inventions, and require large means to operate, or they are of such a nature as to form the basis of an extensive business, the product of which will become staple. We advise selling as a whole when it can be done to advantage.

The most rapid sales are, of course, made of inventions that are small and easily handled; (speculative patents,) articles that can be manufactured anywhere. If the entire territory is sold in one transaction, it is for a relatively lower price than can be obtained if sold by States. This is owing to an aversion to too deep speculation

in patents of that character, even on the part of those who usually make a business of patent speculation. Our experience leads us to believe that the number of patent speculators is greater than ever, and that individually they are in command of less money and less inclined to hazardous investment than formerly.

TABLE UPON WHICH TO BASE ESTIMATES.

Compiled from the Census of 1890, by O. J. Bailey.

[COPYRIGHTED 1890.]

| STATES. | SQUARE MILES. | POPULATION. | NO. OF COUN- TIES. | AVERAGE POPULATION PER CO. |
|----------------|------------------|-------------|--------------------------|----------------------------------|
| Alabama | 51,540 | 1,508,073 | 66 | 22,850 |
| Arkansas | 53,045 | 1,125,385 | 75 | 15,005 |
| California | 155,980 | 1,204,002 | 53 | 22,717 |
| Colorado | 103,645 | 410,975 | 55 | 7,473 |
| Connecticut | 4,845 | 745,861 | 8 | 93,233 |
| Delaware | 1,960 | 167,871 | 3 | 55,957 |
| Florida | 54,240 | 390,435 | 45 | 8,677 |
| Georgia | 58,980 | 1,834,366 | 137 | 13,390 |
| Idaho | 84,290 | 84,229 | 18 | 4,679 |
| Illinois | 56,000 | 3,818,536 | 102 | 37,437 |
| Indiana | 35,910 | 2,189,030 | 92 | 23,794 |
| Iowa | 55,475 | 1,906,729 | 99 | 19,259 |
| Kansas | 81,700 | 1,423,485 | 106 | 13,430 |
| Kentucky | 40,000 | 1,855,436 | 119 | 15,592 |
| Louisiana | 45,420 | 1,116,828 | 59 | 18,930 |
| Maine | 29,895 | 660,261 | 16 | 41,266 |
| Maryland | 9,860 | 1,040,431 | 24 | 43,351 |
| Massachusetts | 8,040 | 2,233,407 | 14 | 159,529 |
| Michigan | 57,430 | 2,089,793 | 83 | 25,178 |
| Minnesota | 79,205 | 1,300,017 | 80 | 16,250 |
| Mississippi | 46,340 | 1,284,887 | 74 | 17,363 |
| Missouri | 68,735 | 2,677,080 | 115 | 23,279 |
| Montana | 145,310 | 131,769 | 17 | 7,751 |
| Nebraska | 76,185 | 1,056,793 | 88 | 12,009 |
| Nevada | 109,740 | 44,327 | 14 | 3,174 |
| New Hampshire | 9,005 | 375,827 | 10 | 37,583 |
| New Jersey | 7,455 | 1,440,017 | 21 | 68,573 |
| New York | 47,620 | 5,981,934 | 60 | 99,699 |
| North Carolina | 48,580 | 1,617,340 | 96 | 16,848 |
| North Dakota | 74,312 | 182,425 | 49 | 3,723 |
| Ohio | 40,760 | 3,666,719 | 88 | 41,667 |
| Oregon | 94,560 | 312,490 | 31 | 10,080 |
| Pennsylvania | 44,985 | 5,248,574 | 67 | 78,337 |
| Rhode Island | 1,085 | 343,343 | 5 | 69,069 |
| South Carolina | 30,170 | 1,147,161 | 35 | 32,776 |
| South Dakota | 76,620 | 327,848 | 56 | 5,855 |
| Tennessee | 41,750 | 1,763,723 | 96 | 18,373 |
| Texas | 262,290 | 2,232,220 | 222 | 10,055 |
| Vermont | 9,135 | 332,205 | 14 | 23,729 |
| Virginia | 40,125 | 1,648,911 | 100 | 16,490 |
| Washington | 66,880 | 349,516 | 34 | 10,280 |
| West Virginia | 24,645 | 760,448 | 54 | 14,082 |
| Wisconsin | 54,450 | 1,683,697 | 68 | 24,760 |
| Wyoming | 97,575 | 60,589 | 12 | 5,049 |
| Territories | 387,460 | 702,548 | 72 | 9,758 |
| Total | 2,973,232 | 62,480,540 | 2,752 | 22,704 |

In making estimates, the advancement in manufacturing, etc., in different sections of the country should be taken into consideration.

To enable inventors to judge somewhat of relative values as between States, we give below the order of them, in which 1 is regarded as the best, 2 the second best, etc.:

1. New York, Pennsylvania, Ohio, Illinois.
2. Missouri, Indiana, Massachusetts.
3. Michigan, Iowa, Wisconsin.
4. Minnesota, Georgia, Kansas, New Jersey, Virginia, Texas, Kentucky, Tennessee, North Carolina, Maryland, California.
5. Colorado, Alabama, West Virginia, Louisiana, Maine, Mississippi, South Carolina.
6. Arkansas, Connecticut, New Hampshire, Vermont.
7. Nebraska, Rhode Island, Delaware, Florida.
8. Oregon, Nevada, District of Columbia.
9. Territories.

It must be remembered that this scale is subject to the modifications to which we have referred; but the average is a good one. We have not altogether followed out the population of the States, but such other elements as our experience has shown us to be valuable in making estimates.

CINCINNATI AS A PATENT CENTER.

"The Queen of the West,
In her garlands dressed,
On the banks of the beautiful river."

Her Unequaled Resources, Her Magnificent Prospects. The City That
Is, and Is to Be, the Greatest Industrial Metropolis
of the United States.

We call the attention of patentees to the following:

Cincinnati is the most prominent central city in the Union. It has unparalleled railroad communication with the South as well as with the North and West.

Cincinnati is a manufacturing center. Her products go to every State and Territory and are specialties in foreign markets. Her manufacturers have been foremost and best known in every industrial exposition throughout the world for the past ten years.

Cincinnati's greatness in every line of industry has been cherished and fostered by patents, and her business men are therefore not so biased and reserved in examining good inventions.

Cincinnati is emphatically a solid city in point of wealth and business activity, and offers the grandest field for patent operations of any city in America—we make no exceptions.

Cincinnati's actual population was in the near neighborhood of 449,827 in 1890. It now exceeds half a million.

Cincinnati has more than double the number of industries and more than double the number of industrial establishments in proportion to population than Chicago, Detroit, Louisville, Cleveland, or probably any other city on this continent.

Nearly one-third of the population of Cincinnati consists of producers as against less than one-fifth of the population of Chicago, Detroit, Louisville and Cleveland. That is, over four-fifths (truthful returns would probably make it five-sixths) of the people of Chicago are middle-men, speculators and other non-producers against two-thirds of the people of Cincinnati, a measure of the comparative resources of the two cities.

Cincinnati is the paradise of labor, having the cheapest provision market and the lowest rents on the continent. A larger proportion of employees own their own homes than in any considerable city in the world. And there are in Cincinnati vastly more thriving building associations, 360 in number, (the "people's banks") than in any city in the world.

The ability of Cincinnati to turn out high grade products cheap, has forced many competing cities into the manufacture of shoddy goods.

Cincinnati, by reason of her central position, her railroads diverging in all directions from the center, and her water-ways, is the most complete, cheapest and best distributing center on the continent.

Cincinnati is the leading iron market on the continent. She produces more iron safes and has the largest iron pipe works of any city in America.

Cincinnati has an abundant and cheap supply of all varieties of soft coal, transported by both water and rail.

Cincinnati is the only great market on the continent for cabinet and other hard woods and poplar, for which other cities are largely dependent upon her.

Cincinnati has immediately and exclusively tributary to her the only practically inexhaustible supply of cabinet, carriage and other woods, east of the Rocky Mountains.

Cincinnati is, and must continue to be, in the indefinite future, the only great market for chestnut oak bark on the continent.

Cincinnati is, and must continue to be, the greatest market on the continent for oak tanned leather, to which all other tanned leather is inferior.

Cincinnati's saddlery and harness product is double that of any city on the continent.

Cincinnati has the largest tannery, under one roof, in the world.

Cincinnati has the great and only White Burley leaf tobacco market on the continent.

Cincinnati has the largest tobacco commission warehouse in the world.

Cincinnati is the leading and lowest paper market in the West, affording unlimited supplies of material for paper industries of all kinds.

Cincinnati is a prime market for hemp, flax, wool and cotton, upon which large industries are and may be expected to be founded in the future.

The manufactured products of Cincinnati, of which wood is the chief or only material, are greater in variety and quantity than those of any other city, and she has the largest cooperage works in the United States.

Cincinnati's combined cabinet product of household furniture, bank and bar fixtures, picture frames and mouldings, wood mantels, etc., exceeds in quantity and excels in grade that of any other city on the continent.

Cincinnati was the pioneer manufacturer of trade furniture in the West, and also in later years of bank and bar fixtures, of which she is the largest and only considerable producer on the continent.

Cincinnati is the second largest clothing manufacturing market in the United States.

There are manufactured and sold at greater value for the money more vehicles in Cincinnati than in any four cities in the world.

Cincinnati is the largest manufacturer of cigar boxes and cigar box material, and has the largest veneer mill in America.

In Cincinnati wood-working machinery first originated. Of such machines she is the largest producer of any city in the world, and ships more of them to Europe than all the rest of the United States. In the manufacture and invention of machine tools, also, she is a leading city, and among her establishments is one of the largest of its kind on the continent.

Cincinnati is the pioneer manufacturer of laundry machinery, in which she dominates the country and supplies Europe, and her soap factories are the largest in the United States.

Cincinnati is the pioneer manufacturer of cigar-making machines, in which she dominates the country and supplies the government factories of Europe.

In Cincinnati was invented and is manufactured the only perfect type-making machine in the world.

In Cincinnati is the largest playing-card manufactory in the world, turning out 40,000,000 packs annually.

In Cincinnati is the largest school-book publishing house in the United States, where a finished book is turned out with every swing of the pendulum of a clock.

In Cincinnati is located the headquarters of the Methodist Book Concern, that prints and issues more religious journals, biographical and other works than any concern in the United States.

Cincinnati's high art lithographic and printing establishments, as might be expected in an art center, are certainly unexcelled.

In Cincinnati is located one of the three most extensive music publishing houses on the continent.

In Cincinnati originated the manufacture of sifters and mixers to facilitate the work of manufacturing chemists, paint makers, etc., and here is run the only large concern of this kind on the continent.

Cincinnati's public schools now, and in the past, have ranked as models for the continent.

Cincinnati has one of the finest City Halls on the continent, built without even a suspicion of jobbery. Her granite and asphalt streets are unsurpassed, and her natural drainage, apart from her sewerage system, is unexcelled, and she is the only city in the world that has built and owns a great trunk railroad.

No city on the continent to-day affords such opportunities for the profitable investment of capital as Cincinnati, and the speculative capitalist will be wise who anticipates the coming boom.

Finally, Cincinnati is the most wonderfully favored city on this continent, and destined to become the great industrial metropolis of the country.

Patentees, if you desire, your invention prominently brought before the public, we can offer you valuable inducements, and earnestly urge you to carefully read the suggestions given in the foregoing pages.

PATENT FORMS.

Assignment of Entire Interest Before Issue of the Patent.

WHEREAS, I, A. B., of —, County of —, State of —, have invented a certain new and useful invention, or improvement in — (giving the title of the same), for which I am about to make application for letters patent of the United States; and, whereas, G. D., of —, County of —, State of —, is desirous of acquiring an interest in said invention, and in the letters patent to be obtained therefor:

Now, therefore, to all whom it may concern, be it known that, for and in consideration of the sum of \$ —, to me in hand paid, the receipt of which is hereby acknowledged, I, the said A. B., have sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over unto the said G. D., the full and exclusive right to the said invention, as fully described in the specification prepared and executed by me preparatory to obtaining letters patent of the United States therefor, and I do hereby authorize and request the Commissioner of Patents to issue the said letters patent to the said G. D., as the assignee of my entire right, title and interest in and to the same, for the sole use and behoof of the said G. D. and his legal representatives.

In testimony whereof, I have hereunto set my hand and affixed my seal, this — day of —, A. D. 189—.

In presence of —

O — P —
S — T —

A — B —. [SEAL.]

Assignment of Entire Interest in Letters Patent.

WHEREAS, I, C. D., of —, County of —, State of —, did obtain letters patent of the United States or (mentioning the title of the invention), which letters patent are numbered —, and bear date the — day of —, in the year one thousand eight hundred and —, and, whereas, I am now the sole owner of said patent and of all rights under the same; and, whereas, E. F., of —, County of —, State of —, is desirous of acquiring the entire interest in the same:

Now, therefore, to all whom it may concern, be it known that for and in consideration of the sum of \$—, to me in hand paid, the receipt of which is hereby acknowledged, I, the said C. D., have sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over unto the said E. F., all the right, title, and interest whatsoever which I have in and to the said improvement in (title), and in and to the letters patent therefor aforesaid; the same to be held and enjoyed by the said E. F., for his own use and behoof, and for the use and behoof of his legal representatives, to the full end of the term for which said letters patent are, or may be, granted (thus including extension), as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made.

In testimony whereof, — have hereunto set — hand and affixed — seal, this — day of —, A. D. 189—.

In presence of —

N— B—.
O— T—.

C— D—. [SEAL.]

Assignment of an Undivided Interest in Letters Patent.

WHEREAS, I, L. M., of —, County of —, State of —, did obtain letters patent of the United States for (giving title), which letters patent are numbered —, and bear date the — day of —, in the year one thousand eight hundred and —; and, whereas, D. E., of —, County of —, State of —, is desirous of acquiring an interest in the same:

Now, therefore, to all whom it may concern, be it known that for and in consideration of the sum of \$—, to me in hand paid, the receipt of which is hereby acknowledged, I, the said L. M., have sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer and set over unto the said D. E., the undivided one-half part of all the right, title and interest whatsoever which I have in and to the said invention, and in and to the letters patent therefor aforesaid; the said undivided one-half part to be held and enjoyed by the said D. E., for his own use and behoof, and for the use and behoof of his legal representatives, to the full end of the term for which said letters patent are, or may be, granted (thus including extension), as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made.

In testimony whereof, — have hereunto set — hand and affixed — seal, this — day of —, A. D. 189—.

In presence of —

A— B—.
A— B—.

L— M—. [SEAL.]

Assignment of Territorial Interest After Grant of Patent.

WHEREAS, I, Q. X., of —, County of —, State of —, did obtain letters patent of the United States for (giving title), which letters patent are numbered —, and bear date the — day of —, in the year one thousand eight hundred and —; and, whereas, I am now the sole owner of said patent and of all rights under the same in the below recited territory; and, whereas, W. O., of —, County of —, State of —, is desirous of acquiring an interest in the same:

Now, therefore, to all whom it may concern, be it known that for and in consideration of the sum of \$—, to me in hand paid, the receipt of which is hereby acknowledged, I, the said Q. X., have sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over unto the said W. O., all the right, title, and interest whatsoever which I have in and to the said invention (or improvement) as secured to me by said letters patent for, to and in the State of —, and for, to, or in no other place or places; the same to be held and enjoyed by the said W. O. within and throughout the above specified territory, and not elsewhere, for his own use and behoof, and for the use and behoof of his legal representatives, to the full end of the term for which said letters patent are, or may be granted (thus including extension), as fully and entirely as the same would have been held and enjoyed by me therein had this assignment and sale not been made.

In testimony whereof, — have hereunto set — hand and affixed — seal, this — day of —, A. D. 189—.

In presence of—

S— T—.
R— D—.

Q— X—. [SEAL.]

License—Shop Right.

In consideration of fifty dollars, to be paid by the firm of S. J. & Co., of —, in the County of —, State of —, I do hereby license and empower the said S. J. & Co. to manufacture in said — [or other place agreed upon], the improvement in —, for which letters patent of the United States, No. —, were granted to —, dated —, 189—, and to sell the machines so manufactured throughout the United States, to the full end of the term for which said letters patent are granted.

Witness my hand this — day of —, 189—.

A— B—.

License—Not Exclusive—With Royalty.

This agreement, made this — day of —, 189—, between A— B—, of —, in the County of —, and State of —, party of the first part, and E— F— & Co., of —, in the county of —, and State of —, party of the second part, witnesseth, that whereas, letters patent of the United States, No. —, for an improvement in —, were granted to the party of the first part, dated —, 189—; and, whereas, the party of the second part is desirous of manufacturing — containing said patented improvement: Now, therefore, the parties have agreed as follows:

[Here state conditions.]

In witness whereof, the parties above named have hereunto set their hands the day and year first above written, at —, in the county of —, and State of —.

A— B—.
E— F— & Co

Transfer of a Trade Mark.

We, A— B—, and X— Z—, of —, in the county of —, and State of —, partners under the firm name of —, in consideration of — dollars to us paid by —, of the same place, do hereby sell, assign, and transfer to the said — and his assigns, the exclusive right to use in the manufacture and sale of — a certain trade mark for — deposited by us in the United States Patent Office and recorded therein —, 189—; the same to be held, enjoyed and used by the said — as fully and entirely as the same would have been held and enjoyed by us if this grant had not been made.

Witness our hands this — day of —, 189—.

A— B—.
X— Z—.

PRICES FOR PRINTED PATENT BLANKS.

We make a specialty of printed forms or blanks for every description of patent business. These blanks are strictly in conformity with the Patent Office rules; are printed on good paper and furnished at the very lowest prices, which are given below:

ASSIGNMENTS.—Including Exclusive Grant, State Rights, County Rights, and Prior to Issue of Patent: 3 for 10 cents; 25 for 75 cents; 100 for \$2.00.

LICENSE WITH ROYALTY (double sheet).—Exclusive or Not Exclusive: 2 for 10 cents; 25 for \$1.00; 100 for \$8.50.

SHOP AND FARM RIGHT LICENSE.—4 for 10 cents; 25 for 50 cents; 100 for \$1.50.

POWER OF ATTORNEY—TRADE MARK TRANSFERS.—3 for 10 cents; 25 for 75 cents; 100 for \$2.00.

We prepay postage. Special forms printed to order at reasonable rates.

ENGRAVINGS.

It seems like folly for an inventor, after having expended months of time and considerable money to perfect and patent an invention, to have his fond hopes crushed out by a little, insignificant, cheap burlesque of an illustration, when, by a very small additional expense, a first class wood engraving could be made that would be attractive and in every way invite the attention of the public, which it would utterly fail to do if it looks "cheap and common." It is undoubtedly true that many really meritorious inventions are condemned because the engravings do not properly represent them. A nicely shaded and tinted wood engraving will always give a better idea of the construction of a machine, and, in this age, all first class business men acknowledge the value of first class engravings by adapting them to represent their goods in every case where it is practicable. If you desire to give an invention a good start on the market, business methods must be used that are up with the times; therefore, if you have not already ordered a first class wood engraving, to properly present your invention to the public, be sure to have one made. Let this be the first step toward giving you an advantage in the market.

It is very desirable in the case of many patents that an engraving should be supplied to enable us to fully and clearly present it to customers. The cost of engravings varies so much that it is hard to arrive at a good basis for calculation. Engravings are of two kinds—sectional, which represent cross views, or cutaway portions to show interior construction; and perspective, which represent the external appearance of the object. Generally, sectional engravings are cheaper, but the perspective views are more comprehensive.

The prices vary with the subject. Size is not an indication of price so much as the subject itself. We execute orders for engravings promptly and at most reasonable figures. The engravers in our employ are the most experienced in this country, and the quality of the work will speak for itself. You can have cuts of your patent made by simply forwarding a model with a statement of the position in which it should be shown, or we will use our own judgment in the matter if requested. All cuts are extra above the cost of the circulars and descriptions named in our circular of terms.

TESTIMONIALS.

A WONDERFUL BUSINESS—A VISIT TO THE LARGEST PATENT OFFICE IN AMERICA.

From Cincinnati Times-Star: As noted in another column, the American Patent Agency, of this city, has removed its offices to the new and elegant quarters, No. 92 West Fourth street, directly opposite the entrance to the new Chamber of Commerce building. The removal of the models and effects of this establishment occupied nearly ten days, and this fact, coupled with the extraordinary variety of machines of quaint and curious design, led our reporter to make an investigation.

The new offices now cover two entire floors, each 25 x 100 feet, and are in the most prominent portion of the city, accessible by stairways from both Fourth and Vine streets, and by elevator on Vine street.

The proprietors are well known as energetic patent attorneys, and as such have built up an immense business in this line. The mere fact that they have about forty clerks and experts constantly in their employ, and a pay roll of over \$400 per week, is the best evidence of their success.

The business consists in procuring and selling patents. Within the past three years it has grown to such proportions that change of quarters became necessary, and resulted in procuring the present location.

The firm has an office in Washington City, and also in London, Berlin, Vienna, Paris, and Melbourne, Australia. Within the past year they have procured patents in nearly every country on the globe, where patents are obtainable, so that the foreign soliciting forms a very important part of the business.

In addition to the soliciting business, they have a special department devoted to the sale of patents and placing them on royalty. In this the firm has been so successful that they make a standing challenge to prove that they have disposed of more patents during the past five years than all the other patent agencies in the United States combined. This is certainly a record to be proud of. It is conceded that the peculiar character of the business makes success a doubtful thing with the majority of those who engage in it, but the record of this Agency for prompt and fair dealing, and the unequaled success of its operations, make it indeed a notable concern and worthy of patronage.

[Since the above was published, the increasing business has necessitated securing still larger quarters, and we now occupy the entire building above the ground floor, 73 West Fifth St., (*Fountain Square*), consisting of four entire floors 25 x 90 feet. Even this space is cramped, and we contemplate, in the near future, putting up a building suited to our purposes.]

From *Western Tobacco Journal* (Cincinnati, O.): Having occasion to pass by the above institution the other day, we called in to ascertain what was "new under the sun," in the way of inventions, and to see what new ideas had been demonstrated in a practical form. From the number of models in the model room of this Agency one would be led to suppose that a section of the U. S. Patent Office had been removed to this city. The inventions there exhibited embrace articles of every description in mechanics, and it would be difficult—in fact, impossible—to give any idea of the variety. They also give special attention to soliciting patents in this country and are prepared to obtain patents in all European countries through agents located in the principal countries.

In addition to this they publish the *AMERICAN INVENTOR* [now *THE WORLD'S PROGRESS*], which has from forty to sixty pages filled with original engravings and devoted to the interests of inventors who desire to dispose of their patents, and to science and the mechanical arts. We cheerfully recommend this Agency.

From *Southern Agriculturist* (Louisville, Ky.): This well known firm is extensively engaged in procuring and selling patents, and we were really surprised at the extent and magnitude of the business, reaching, as it does, from Maine to California, having over forty branch offices established, besides traveling agents of experience and ability. With these facilities brought to bear upon a patent, it is safe to say that something effective can be done in the way of bringing it to public notice. Another feature of this firm is its method of conducting business. Before a patent is taken for sale, it is thoroughly examined by experts to ascertain its practical features and consequent salable value, and no patent is handled unless of such a nature as to insure a sale of some kind within the specified contract time. Their great success can, undoubtedly, be attributed to the care and attention given to the selection of patents.

In the soliciting department they have been very successful, and judging from the nature of the cases which they have prosecuted before the Patent Office, we feel free in saying that inventors can rely upon their ability and skill in securing claims. This combination of the selling department with the soliciting department is a new feature in the patent business, and gives inventors a double advantage.

From *Independent Record* (Cincinnati, O.): To successfully sell patents, it not only requires legal knowledge, but a good, sound judgment as to the value of each individual invention. From what we can learn, the leading officers of the company are qualified with the desired elements in an unusual degree; they have also the confidence of our leading merchants, being indorsed by the most prominent gentlemen in our midst; therefore it will be seen that patentees need have no fear of intrusting their inventions to the American Patent Agency.

This company has agencies in the principal cities of the Union, and many traveling agents are employed in the districts where these branch agencies do not exist. From a glance at the Home Office, which is located at 73 West Fifth street, the visitor is impressed by the number of models displayed that the business is in a flourishing condition.

STATE LAWS REGULATING STOCK COMPANIES.

The American Patent Agency will prepare papers for incorporating companies in any State in the United States, and in a number of States we are in a position to maintain an office and act as resident agents for corporations doing business in other States. Competent counsel are employed who have a thorough knowledge of corporation laws. Properly drafted minutes of stockholders' and directors' meetings are furnished. Charges moderate.

We are prepared to furnish a complete synopsis of the corporation laws, mode of procedure and forms for petitions in every State and Territory of the United States and of all the Latin countries of North and South America, also of many of the European countries. Charges for this information will be moderate.

The following is a summary of some important features governing corporations for profit in some of the States:

New York.

In New York, capital stock not limited. One-half of full amount of stock must be subscribed and 10 percent of subscriptions paid up, before business may be transacted. Duration: when not specified in the charter, may exist indefinitely; but limited to fifty years when specified. State fees: incorporation fee, \$10; nominal fees for recording and a tax of one-eighth of 1 percent upon the total amount of capital stock; these must be paid before any business may be transacted. A majority of the incorporators must be residents of the State and at least two-thirds of them citizens of the United States. The liability of stockholders is regulated by circumstances.

Ohio.

Corporations are perpetual unless limited by their charter. There must be at least five incorporators, a majority being residents of the State. The amount of paid-up stock is not fixed, but at least 10 percent of the stock must be subscribed. Stock may consist of common and preferred or both. State fee \$10, if \$10,000 or under, and \$1 for every \$1,000 in excess of \$10,000. Stockholders are liable for debts of the corporation in double the amount of the stock owned by him.

Pennsylvania.

Five or more persons may form a corporation, three of whom must be citizens of the State. Notice must be published once a week for three weeks in two papers, of intention to apply for charter. Before business can be commenced, 10 percent of the capital stock must be paid up in cash. State fees from \$30 to \$45, including fee for filing statement. A company organized under the act of 1874 shall pay to the State Treasurer a bonus of one-quarter of 1 percent upon the whole amount of the capital stock, in two equal installments; the first installment payable at time of incorporation and the second one year after. Liability: Incorporations embraced under Class II., the directors are jointly and severally liable to the extent of the excess of indebtedness over the amount of the capital stock; the shareholder, to the amount of the unpaid portion of his stock.

Connecticut.

Number of persons required to form a company, three or more. Articles of incorporation must be published at full length, once, in the county. Twenty percent of the stock must be paid in cash to begin business. No limit to amount of capital. State fee nominal.

New Jersey.

Organization may be effected by three or more persons. Capital requirements, not less than \$2,000. Period of existence, 50 years, with provision for extension. No requirement as to amount of paid-up capital to begin business. State fees, \$25, up to \$100,000; in excess of that amount, 20 cents per \$1,000. The laws are very favorable to corporations.

California.

Articles of incorporation must be filed in the county where located and with the Secretary of State. Must be five or more incorporators and a majority residents of the State. Limited to fifty years. Amount of paid-up stock not specified. State fees \$15 to \$20. Shareholders are proportionately liable for debts and directors specially liable. All holdings of corporations taxed.

Massachusetts.

Capital requirements, not less than \$5,000 nor more than \$1,000,000 for manufacturing purposes, to be paid in, in cash or property; must be fully paid up. State fees not less than \$5 nor more than \$200. Liability of shareholders depends upon special conditions and character of the charter.

Indiana.

Persons, three or more. Maximum duration, 50 years. Stock must be fully paid up within 18 months. State fees: \$10,000 stock, \$10; over \$10,000, one-tenth of 1 percent of total capital stock. Recording fee additional. Liability single or double, according to kind of company.

Illinois.

The petitioners are appointed by the Secretary of State as commissioners to open books of subscription to capital stock. When the stock is fully subscribed, a meeting is held of subscribers and organization effected. Incorporators need not be residents of the State, but the principal office must be located there. No limit to capital stock. Maximum duration, 99 years. State fee, \$25. Recording from \$1.50 to \$5.00. Stockholder is liable for debts of corporation to amount of the unpaid portion of his stock.

Alabama.

Corporations may be formed for any class of business purposes. The incorporators need not be residents of the State. No limit is fixed for the existence of manufacturing corporations. The State fees are graded from \$25 upward, according to amounts of capital stock. Fifty percent of the stock must be subscribed and 20 percent actually paid in. Corporations are taxed same as individuals. Stockholders are liable to the amount of their unpaid subscriptions to stock.

Arkansas.

Any number of persons not less than three may form a company. Residence not required. No special amount of paid-up stock necessary. Installments subject to call by directors by agreement. No limit to duration. State fee, \$25; amendments, \$10. Taxes same as of individuals. Foreign corporations must have place of business in the State and resident agents.

Colorado.

Three or more incorporators are required, and they need not be residents of State or the United States. Minimum State fee, \$10. Duration limited to twenty years, but may be extended. Stockholders are liable to the amount unpaid upon their stock. Manufacturing corporations not taxed by the State. Special laws relating to foreign corporations.

Virginia.

Charters are obtained from the Circuit or Corporation Court or in vacation from the Judge of either. The term of manufacturing company is limited to 30 years, but after 15 years may be repealed by the legislature. State fees are nominal, but a tax graduated according to the amount of capital stock is payable. Stockholders are liable only for amount of stock subscribed for by them. Foreign corporations have all the privileges and disabilities of domestic corporations, but such corporations are required to have an office within the State.

Delaware.

Company may be formed by three or more persons, a majority of whom must be actual residents of the State. Limit of duration, 20 years. Ten percent of capital stock must be paid up before commencing business. State fees, \$30 to \$50. The original subscriber to stock remains liable for debts of the company to the amount that may be unpaid upon stock he subscribed for.

INSIGNIFICANT ORIGIN OF GREAT WORKS.

It is not the tools that make the workman, but the trained skill and perseverance of the man himself. Some one asked Opie by what wonderful process he mixed his colors. "I mix them with my brains, sir," was the reply. It is the same with every workman who would excel.

Ferguson made marvelous things—such as his wooden clock, that actually measured the hours, by means of a common penknife, a tool in everybody's hand, but then everybody is not a Ferguson.

A pan of water and two thermometers were the tools by which Dr. Black discovered latent heat; and a prism, a lens, and a sheet of pasteboard enabled Newton to unfold the composition of light and the origin of color.

An eminent foreign savant once called upon Dr. Wollaston, and requested to be shown over his laboratory, in which science had been enriched with so many important discoveries, when the doctor took him into a little study, and pointed to an old tea tray on the table, containing a few watch glasses, test papers, a small balance, and a blow pipe, and said: "There is all the laboratory I have."

Stockhardt learned the art of combining colors by closely studying butterflies' wings; he would often say no one knew how much he owed to these tiny insects.

A burnt stick and a barn door served Wilkie in lieu of pencil and canvas.

Bewick first practiced drawing on the cottage walls of his native village, which he covered with his sketches in chalk; and Benjamin West made his first brushes out of the cat's tail.

Ferguson laid himself down in the fields at night in a blanket, and made a map of the heavenly bodies, by means of a thread with small beads on it, stretched between his eyes and the stars.

Franklin first robbed the thunder cloud of its lightning by means of a kite with two cross sticks and a silk handkerchief.

Watt made his first model of the condensing steam engine out of an old anatomicist's syringe, used to inject the arteries previous to dissection.

Gifford worked his first problem in mathematics, when a cobbler's apprentice, upon small scraps of leather which he beat smooth for the purpose, while Rittenhouse, the astronomer, first calculated eclipses on his plow handle.

Chronological History of Discovery and Progress.

1180—Glass first used for windows.
1200—Mariner's Compass first used.
1234—Coal first dug for fuel.
1240—Spectacles invented.
1302—Paper first made from linen rags.
1320—Gunpowder invented.
1436—Printing invented.
1457—Almanacs first printed by Purbach, in Vienna. Newspaper, first in the world issued, called The Gazette, printed at Nuremberg.
1462—Metal Type in matrices first made by Peter Schœffer, at Nuremberg. Bible first printed, at Mentz.
1471—Printing Press first set up, by Caxton.
1476—Watches first made at Nuremberg.
1517—The True System of the Universe, discovered by Copernicus
1527—Wood Engraving invented by Albert Durer.
1545—Modern Needles first came into use.
1555—Wheeled Carriages first used in France.
1559—Steel Knives first used in England, and Coaches introduced about the same time.
1568—Clocks first made in England.
1590—Telescopes were invented, and the first was probably used in England in 1608. Spencer, Shakespeare, Bacon, Kepler, Tycho Brahe, were contemporaries in this year.
1650—First Air Pumps manufactured.
1711—Piano-forte invented by Father Wood, an English monk at Rome.
1736—Union Fire Company, Philadelphia, organized December 7th, the first volunteer fire company in America, and probably in the world.
1777—American Flag adopted by Congress.
1783—Balloon ascension first made, June 5th, near Lyons, France.
1786—Vessel navigated first by steam, Philadelphia, July 20th, by John Fitch.
1787—Copper Cent first coined at New Haven, Conn.
1808—Steel Pens first made.
1811—Lead Pencils first made in the United States, by William Munroe, at Concord, Mass.
1816—Pins first manufactured in the United States.
1826—Kerosene first used for illuminating purposes. Railroad, first in United States, extended from granite quarries at Quincy, Mass., to Neponset River, three miles. Now nearly 100,000 miles in the United States.
1828—Passenger Railroad, first in America opened, the Baltimore & Ohio.
1832—Telegraph invented by Morse.
1838—Telegraph Wire of any practical importance first in England, was laid from Paddington to West Drayton; the first in Scotland in 1841; and in Ireland 1854.
1838—Passenger Steamships began regular voyages across the Atlantic; the Sirius, from London to New York, in 17 days, and the Great Western, from Bristol to New York, in 15 days.
1839—Envelopes first used for letters, etc.
1846—Sewing Machine patented, by Elias Howe.
1848—Gold first discovered in California.
1858—Cable Dispatches first sent across Ocean.
1877—Telephone first put into public use. Phonograph, Edison's, first brought to public attention.
1884—Discovery of Cocaine, the most remarkable of anæsthetics.
1885—The Bartholdi Statue erected upon Bedloe's Island, New York.

VALUABLE INFORMATION

— FOR —

INVENTORS, MECHANICS, FARMERS, MERCHANTS,

— AND FOR —

ALL OTHER TRADES AND PROFESSIONS.

Business Laws in Brief.

Ignorance of the law excuses none.

It is a fraud to conceal a fraud.

The law compels no one to do impossibilities.

An agreement without consideration is void.

Signatures made with lead pencil are good in law.

A receipt for money paid is not legally conclusive.

The acts of one partner bind all the others.

A contract made with a minor is invalid.

A contract made with a lunatic is void.

Contracts for advertising in Sunday newspapers are invalid.

Each individual in a partnership is responsible for the whole amount of the debts of the firm.

Principals are responsible for the acts of their agents.

Agents are responsible to their principals for errors.

A note given by a minor is void.

It is not legally necessary to say on a note "for value received."

A note drawn on Sunday is void.

A note obtained by fraud, or from a person in a state of intoxication, can not be collected.

If a note be lost or stolen, it does not release the maker; he must pay.

The indorser of a note is exempt from liability if not served with notice of its dishonor within twenty-four hours of its non-payment.

Value of Foreign Money on a Gold Basis.

| | | | |
|-------------------------------|---------|-------------------------------|--------|
| Pound Sterling, England | \$ 4 84 | Real, of Spain..... | \$.05 |
| Guinea, do | 5 05 | Five Rubles, of Russia | 3 95 |
| Crown, do | 1 21 | Ruble, do | .75 |
| Shilling, do | .22 | Franc, of Belgium..... | 18 |
| Napoleon, of France | 3 84 | Ducat, of Bavaria | 2 27 |
| Five Francs, do | .93 | Franc, of Switzerland | 18 |
| Franc, do | .18 | Crown, of Tuscany..... | 1 05 |
| Thaler, of Saxony | .68 | Ten Thalers, of Germany | 7 90 |
| Guilder, of Netherlands | .40 | Ten Mark, do | 2 38 |
| Ducat, of Austria..... | .28 | Krone, (crown) do | 6 64 |
| Florin, do | .48 | Twenty Mark, do | 4 76 |
| Doubloon, of Spain | 15 54 | Twenty Lire, of Italy..... | 3 84 |

Tables of Weights and Measures.

TROY WEIGHT.

24 grains 1 pennyweight, 20 pennyweights 1 ounce, By this weight, gold, silver and jewels only are weighed. The ounce and pound in this are the same as in Apothecaries' weight.

APOTHECARIES' WEIGHT.

20 grains 1 scruple, 3 scruples 1 dram, 8 drams 1 ounce, 12 ounces 1 pound.

AVOIRDUPOIS WEIGHT.

16 drams 1 ounce, 16 ounces 1 pound, 25 pounds 1 quarter, 4 quarters 100 weight, 2,000 pounds 1 ton.

DRY MEASURE.

2 pints 1 quart, 8 quarts 1 peck, 4 pecks 1 bushel, 36 bushels 1 caldron.

LIQUID OR WINE MEASURE.

4 gills 1 pint, 2 pints 1 quart, 4 quarts 1 gallon, 31½ gallons 1 barrel, 2 barrels 1 hogshead.

TIME MEASURE.

60 seconds 1 minute, 60 minutes 1 hour, 24 hours 1 day, 7 days 1 week, 4 weeks 1 lunar month, 28, 29, 30 or 31 days 1 calendar month (30 days 1 month in computing interest), 52 weeks and 1 day (or 12 calendar months) 1 year; 365 days, 5 hours, 48 minutes and 49 seconds 1 solar year.

CLOTH MEASURE.

2½ inches 1 nail, 4 nails 1 quarter, 4 quarters 1 yard.

CIRCULAR MEASURE.

60 seconds 1 minute, 60 minutes 1 degree, 30 degrees 1 sign, 90 degrees 1 quadrant, 4 quadrants (or 360 degrees) 1 circle.

LONG MEASURE—DISTANCE.

3 barleycorns 1 inch, 12 inches 1 foot, 3 feet 1 yard, 5½ yards 1 rod, 40 rods 1 furlong, 8 furlongs 1 mile.

MISCELLANEOUS.

3 inches 1 palm, 4 inches 1 hand, 6 inches 1 span, 18 inches 1 cubit, 21.8 inches 1 Bible cubit, 2½ feet 1 military pace.

SQUARE MEASURE.

144 square inches 1 square foot, 9 square feet 1 square yard, 30½ square yards 1 square rod, 40 square rods 1 rood, 4 roods 1 acre.

SURVEYORS' MEASURE.

7.92 inches 1 link, 25 links 1 rod, 4 rods 1 chain, 10 square chains (or 160 square rods) 1 acre, 640 square acres 1 square mile.

CUBIC MEASURE.

1.728 cubic inches 1 cubic foot, 27 cubic feet 1 cubic yard, 128 cubic feet 1 cord (wood), 40 cubic feet 1 ton (shipping), 2150.42 cubic inches 1 standard bushel, 268.8 cubic inches 1 standard gallon, 1 cubic foot four-fifths of a bushel.

The Metric System of Weights and Measures,

With Equivalents in U. S. Standards for Ready Reference.

MEASURES OF LENGTH.

| | |
|----------------------------------|-----------------------------------|
| Millimeter (.001 meter) | 0.03937 inches. |
| Centimeter (.01 meter) | 0.39371 " |
| Decimeter (.1 meter) | 3.93708 " |
| Meter (unit) | 39.3708 " or 3.2809 feet. |
| Decameter (10 meters) | 32.809 feet or 10.9363 yards. |
| Hectometer (100 meters) | 328.09 " 109.3633 " |
| Kilometer (1,000 meters) | 1,093.63 yards, or 0.62138 miles. |
| Myriameter (10,000 meters) | 10,936.33 " or 6.21382 " |

MEASURES OF AREA.

| | |
|--|---|
| Centiare (.01 are or square meter) | 1.1960 square yards=1.550 square inches. |
| Are (square decameter and unit) | 119.6033 square yards or 4.0247 acres= 3.9536 p. |
| Decare (10 acres) | 1,196.033 square yards or 0.247 acres=39.536 p. |
| Hectare (100 acres) | 11,960.33 square yards or 2.471 acres=2 a. 1 r. 35.376 p. |

MEASURES OF CAPACITY.

METRIC DENOMINATIONS.

| | | |
|-------------------------|-------------------|-----------------------|
| Milliliter..... | 0.001 of a liter. | 1 cubic centimeter. |
| Centiliter | 0.01 of a liter. | 10 cubic centimeters. |
| Deciliter | 0.1 of a liter. | .1 cubic decimeter. |
| Liter | 1 liter. | 1 cubic decimeter. |
| Decaliter..... | 10 liters. | 10 cubic decimeters. |
| Hectoliter..... | 100 liters. | .1 cubic meter. |
| Kiloliter or stere..... | 1,000 liters. | 1 cubic meter. |

| ENGLISH EQUIVALENTS. | | | UNITED STATES LIQUID MEASURE. |
|-------------------------|----------------|-------------------------|----------------------------------|
| Milliliter..... | 0.00704 gills. | 0.061027 cubic in. | 0.27 fluid drams. |
| Centiliter | 0.0704 gills. | 0.610271 cubic in. | 0.338 fluid oz. |
| Deciliter | 0.704 gills. | 6.102705 cubic in. | 0.845 gill. |
| Liter | 1.761 qts. | 61.027052 cubic in. | 1.0567 quart. |
| Decaliter..... | 2.201 gallons. | 610.270515 cubic in. | 2.6417 gallons. |
| Hectoliter | 2.751 bus. | 6,102.705152 cubic in. | 26.417 gallons. |
| Kiloliter or stere..... | 27.512 bus. | 61.027.051519 cubic in. | 264.17 gallons. |

WEIGHTS.

METRIC DENOMINATIONS AND VALUES.

Equivalent in
Denominations in
Use.
Avoirdupols.

| NAMES. | Number of Grams. | Weight of What Quantity of Water at Maximum Density. |
|------------------------|---------------------|---|
| Milligram..... | 0.001 | 1 cubic millimeter. |
| Centigram | 0.01 | 10 cubic millimeters. |
| Decigram | 0.1 | .1 cubic centimeter. |
| Gram | 1 | 1 cubic centimeter. |
| Decagram..... | 10 | 10 cubic centimeters. |
| Hectogram..... | 100 | 1 deciliter. |
| Kilogram or kilo | 1,000 | 1 liter. |
| Myriagram..... | 10,000 | 10 liters. |
| Quintal | 100,000 | 1 hectoliter. |
| Millier or ton..... | 1,000,000 | 1 cubic meter. |

Quantity of Seed Required to Plant an Acre.

| KIND OF SEED. | QUANTITY. | KIND OF SEED. | QUANTITY. |
|--|------------|---------------------------------------|-----------------|
| Asparagus in 11 inch drills | 10 quarts | Grass, rye | 20 quarts |
| Asparagus plants, 4 by 1½ feet | 8,000 | Lettuce, in rows 2½ feet | 3 pounds |
| Barley | 2½ bushels | Lawn grass | 35 pounds |
| Beans, bushel, in drills 2½ feet | 1½ bushels | Melons, water, in hills 8 by 8 feet | 3 pounds |
| Beans, pole, Lima, by 4 feet | 20 quarts | Melons, citrons, in hills 4 by 4 feet | 2 pounds |
| Beans, Carolina, prolific, etc., 4 by 3 feet | 10 quarts | Oats | 2 bushels |
| Beets and mangold, drills, 2½ feet | 9 pounds | Onion, in beds for sets | 50 pounds |
| Broom corn in drills | 12 pounds | Onions, in rows for large bulbs | 7 pounds |
| Cabbage, outside, for transplanting | 12 ounces | Parsnip, in drills 2½ feet | 5 pounds |
| Cabbage, sown in frames | 4 ounces | Pepper, plants, 2½ by 1 foot | 17,500 |
| Carrot, in drills, 2½ feet | 4 pounds | Pumpkin, in hills 8 by 8 feet | 2 quarts |
| Celery, seed | .8 ounces | Parsley, in drills 2 feet | 4 pounds |
| Celery, plant 4 by ½ feet | 25,000 | Peas, in drills, short varieties | 2 bushels |
| Clover, white Dutch | 13 pounds | Peas, in drills, tall varieties | 1 to 1½ bushels |
| Clover, Lucerne | 10 pounds | Peas, broadcast | 3 bushels |
| Clover, Alsike | .6 pounds | Potatoes | 8 bushels |
| Clover, large red with timothy | 12 pounds | Radish, in drills 2 feet | 10 pounds |
| Clover, large red without timothy | 16 pounds | Rye, broadcast | 1½ bushels |
| Corn, sugar | 10 quarts | Rye, drilled | 1½ bushels |
| Corn, field | 8 quarts | Squash, bushel, in hills 4 by 4 feet | 3 pounds |
| Corn, salad, drill 10 inches | 25 pounds | Turnips, in drills 2 feet | 3 pounds |
| Cucumber, in hills | .3 quarts | Turnips, broadcast | 3 pounds |
| Flax broadcast | 20 quarts | Tomatoes, in frames | 3 ounces |
| Grass, timothy with clover | .6 quarts | Tomatoes, seed in hills 3 by 3 feet | 8 ounces |
| Grass, timothy without clover | 10 quarts | Tomatoes, plants | 3,000 |
| Grass, orchard | 25 quarts | Wheat, in drills | 1½ bushels |
| Grass, red top or heads | 20 quarts | Wheat, broadcast | 2 bushels |
| Grass, blue | 28 quarts | | |

Scientific Items of Interest,

A gallon of water "U. S. Standard" weighs 8½ pounds and contains 231 cubic inches.

A cubic foot of water weighs 62½ pounds and contains 7½ gallons.

Each nominal horse power of boilers requires 1 cubic foot of water per hour.

In calculating horse power of steam boilers, consider for tubular or flue boilers 15 square feet of heating surface equivalent to one horse power.

Condensing engines require from 20 to 25 gallons of water to condense the steam evaporated from one gallon of water.

To find the pressure per pounds per square inch of a column of water, multiply the height of the column in feet by 434. Approximately, every foot of elevation is equal to ½ pound per square inch pressure.

To find the capacity of a pump cylinder in gallons, multiply the area in inches by the length of the stroke in inches, which will give the total number of cubic inches; divide this amount by 231 (which is the cubical contents of a gallon in inches) and the product is the capacity of the pump cylinder in gallons.

The ordinary rate to run pumps is a piston speed of 100 feet per minute.

To find the quantity of water elevated by a pump in one minute, with a piston speed of 100 feet per minute, square the diameter of water cylinder in inches and multiply by 4. Example; Capacity of a 5 inch cylinder is desired, the square of the diameter (5 inches) is 25, which, multiplied by 4, gives 100, the number of gallons per minute (approximately).

To find the diameter of a pump cylinder to move a given quantity of water per minute (piston speed being 100 feet per minute), divide the number of gallons by 4, then extract the square root, and the result will be the diameter in inches.

To find the velocity in feet per minute necessary to discharge a given volume of water in a given time, multiply the number of cubic feet of water by 144, and divide the product by the area of pipe in inches.

To find the area of a required pipe, the volume and velocity of water being given, multiply the number of cubic feet of water by 144, and divide the product by the velocity of the water in feet. The area being found, it is easy to get the diameter of pipe necessary.

The area of a steam piston multiplied by the steam pressure gives the total amount of pressure exerted. The area of the water piston multiplied by the pressure of water per square inch gives the resistance. A margin must be made between the power and resistance to move the piston at the required speed, usually reckoned about 50 percent.

How to Remove Tin from Copper Vessels.

Immerse the article in a solution of blue vitriol. To remove tin from plates without acid, boil the scrap tin with soda lye in presence of litharge.

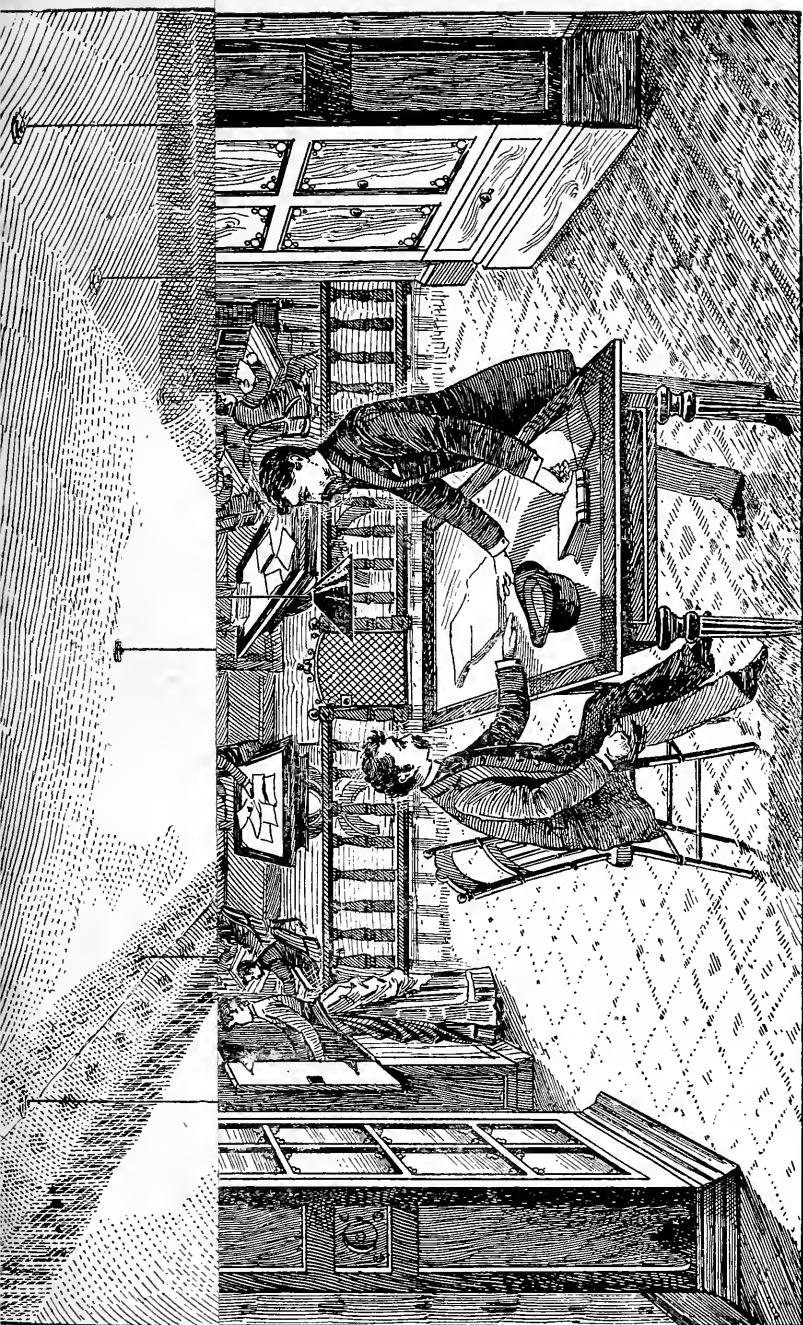
NAMES AND ADDRESSES OF PARTIES FOR WHOM THIS AGENCY HAS PROCURED PATENTS.

E. Berninghaus, Cincinnati, Chairs (Four Patents).
R. Forward, Cincinnati, Car Coupling.
James G. Henderson, Cincinnati, Design Patent.
S. Newman, Cincinnati, Display Stand.
S. Kehlenbeck, Cincinnati, Baby Carrier.
Jacob Rubsam, New York, N. Y., Fire Escape.
A. Caywood, Ithaca, Ohio, Stove.
W. Winkless, Newport, Ky., Elevator.
G. W. Lishawa, Hartwell, Ohio, Railroad Time Table.
C. V. Fleetwood, Cincinnati, Stove.
T. Lee, Cincinnati, Freight Car, Cooker, Peanut Roaster.
H. Jeffrey, Ludlow, Ky., Switches.
J. Skardon, Cincinnati, Darning Attachment for Sewing Machines.
C. E. Frick, Cincinnati, Ice Cream Freezer.
C. Heinemann, Hammond, Ind., Scaffolding.
J. G. Wallace, Chicago, Ill., Return Postal Card.
Feneran & Milks, Machias, N. Y., Hay Knife.
C. Buerling, Cincinnati, Shutter Opener.
S. A. White, Harrisburg, Pa., Bicycle.
C. E. Kister, Cincinnati, Cushion Former.
R. J. Kidd, Cincinnati, Pail Cover.
M. Bruner, Buckland, Ohio, Harrow.
F. P. Burkhardt, Chelan, Wash., Mortise Lock.
John Braithwaite, Winchester, Canada, Loose Pulley Oiler.
Woodruff & Bellew, Hartwell, Ohio, Thill Support.
F. H. Farnham, Cincinnati, Buggy Top.
P. Davis, Cincinnati, Damper Regulator.
M. B. Moore, Morgan, Ky., Marking Pen.
John Fleming, Houghton, Mich., Roller Bearing.
W. B. Bust, Dunedin, New Zealand, Puzzle.
M. L. Rogers, Exeter, Neb., Sulky Harrow.
P. H. Quinn, Salamanca, New York, Belt Tightener.
William Dickman, Cincinnati, Watchmaker's Tool.
Nick Letzler, Napoleon, Ind., Fire Escape.
C. W. King, Kalamazoo, Mich., Portable Boat.
F. V. Knauss, Portsmouth, Ohio, Fire Box and Stove.
P. J. Hanley, Amesburg, Mass., Vehicle Brake.
Grosch, Allenberg & Buerling, Cincinnati, Shutter Opener.
G. F. Davis, Black Pine, Montana, Churn.
C. H. Davis, Chenoa, Ill., Ventilated Hat.
C. H. Snyder, Percival, Iowa, Car Coupling.
D. Whitburn, London, England, Puzzle.
Kem & Frederick, Purcell, I. T., Photograph Washer.
W. P. Burke, Edina, Mo., Band Cutter.
A. C. Wickham, Carthage, Mo., Cultivator.
R. Fullerton, Martin, Tenn., Traction Engine.
J. V. Hotchkiss, Jay, Ind., Saw.
G. E. McCune, Harveysburg, Ohio, Planter.
E. O. C. Ord, Fort Keogh, Montana, Gun Sight.
S. J. Ford, Placerville, Cal., Car Coupling.
John T. Spivey, Fairview, W. Va., Chimney Top.
S. D. Gray, Carbondale, Colo., Gardener's Stool.
H. Kehlenbeck, Pleasant, Ind., Saw.
Ruff Brewing Co., Quincy, Ill., Trade Mark.
John H. Wheeler, Saugatuck, Mich., Musical Instrument.
J. B. Hogan, North Adams, Mass., Air Brake.
J. J. Burwell, Covington, Ky., Locomotive Boiler.
T. J. Hathaway, Montevallo, Mo., Seed Planter.
William Crook, Sr., Winnipeg, Canada, Motor.
E. H. Truman, Wilmington, Del., Puzzle.
D. Peters, Cincinnati, Tobacco Pipe.

George Piddington, New Zealand, Rim Lock.
 W. B. Lawrence, Columbus, Ohio, Printing Press.
 O. W. Newcomb, Welda, Kan., Mail Box.
 J. G. Wiegand, Stockton, Ill., Metal Roof.
 J. A. Elliott, Cincinnati, Velocipede and Stovepipe Joint.
 R. N. Reed, Covington, Ky., Camera and Clothes Drier.
 N. B. Marston, Lebanon, N. H., Floor Clamp.
 N. B. Gibson, Thorps Springs, Tex., Fire Screen.
 Oscar Moeller, Hamburg, Germany, Barometer.
 S. H. Cawley, Troy, Ohio, Fifth Wheel.
 W. Heister, Cincinnati, Joist Lifter and Fire Escape.
 H. B. Richards, La Grange, Texas, Insect Exterminator.
 W. N. Stern, Cincinnati, Road Cart.
 G. E. Eggert, Argo, N. C., Door Mat.
 G. W. Rhynearson, Cincinnati, Shutter Fastener.
 Arthur Porter, Galena, Ill., Lawn Mower.
 B. Schroeder, Cincinnati, Dumping Wagon.
 O. C. Pratt, Tampico, Mexico, Seal Lock.
 F. J. Melvin, Shiawassee, Mich., Road Cart.
 C. E. Michaud, Yamasaka, Canada, Car Coupling.
 C. H. Simmons, Munford, Ala., House Anchor.
 John J. Graf, Cincinnati, Wash Stand.
 Hazen & Hildreth, Cincinnati, Bicycle Brake.
 Kroness & Wuest, Cincinnati, Washing Machine.
 W. H. Babcock, Arlington, Iowa, Corn Planter.
 John Wallace, Redbank, Ohio, Return Postal.
 C. H. Th. Claus, St. Louis, Mo., Wardrobe.
 Patrick McDermott, Memphis, Tenn., Keys for Pulleys.
 Samuel H. Grimes, Moscow, Ohio, Window Shade Exhibitor.
 Mrs. Alice E. Mendenhall, Visalia, Ky., Milk Vessel.
 Wendell Maus, Cincinnati, Elevator Gate.
 William Wright, Willink, N. Y., Car Coupler.
 Thomas H. Mooney, Covington, Ky., Coffin.
 E. M. Childs, Cincinnati, Advertising Cabinets.
 C. E. Bromwell, Cincinnati, Car Starter and Propeller.
 Charles Wetzel, Newport, Ky., Folding Bed.
 A. R. Cusick, Allendale, Ill., Lock.
 William W. Bell, Valley Springs, Dak., Buckle.
 Sarah A. Perry, Ripley, Ohio, Pencil Holder.
 J. C. Winsor, Viroqua, Wis., Extension Ladder.
 Frank J. Hall, Rushville, Ind., Tile Kiln.
 S. T. Werley, Keokuk, Iowa, Fifth Wheel.
 Charles F. Filson, Point Pleasant, W. Va., Gutter Box for Tinniers.
 W. H. Bruning, Madison, Ind., Coffee Roaster.
 William Gray, Three Rivers, Mich., Paper Stock Drainers.
 Edward B. Elrod, Flora, Ill., Foot Warmer, Lantern and Heater.
 George W. Coddington, Middletown, Ohio, Tools for Glass Jars.
 William Wild, Cincinnati, Pump.
 Rev. B. J. M. Menge, Cincinnati, Lamp.
 E. H. Williams, Dayton, O., Automatic Fire Extinguishing Acid Bottle.
 Daniel Lambert, Centreville, Mass., Dish Basin.
 Morris Seidell, Harrison, Ark., Egg Case.
 O. H. McKeldin, Louisville, Ky., Spindle Bearing.
 Robert Bigney, Copleston, Ont., Canada, Car Coupler.
 Wilson & Black, Bradford, Pa., Sucker Rod.
 E. Humbrecht, Cincinnati, Bicycle.
 Bourbon Current, Paris, Ky., Coffin Case.
 M. A. Farrell, New River, Tenn., Furnace Attachment.
 C. B. Saunders, Columbia, Mo., Dish Washer.
 George Feldkamp, Cincinnati, High Chair.
 Frank T. Foster, Cincinnati, Awning.
 J. Lawson, Denver, Colo., Lawn Sprinkler.
 F. W. Martin, Eau Claire, Wis., Chair.
 B. F. Ellis, Honey Grove, Texas, Farm Gate.
 Synvita Co., Delphos, O., Remedies in Solid Form for Bronchial Diseases.
 William Weiand, New Bremen, Ohio, Hair Spring Regulator.
 A. S. Neal, Richmond, Texas, Car Coupler.
 M. Wilson, Honey Grove, Texas, Water Heater and Purifier.

Joseph Von Driska, Cincinnati, Vehicle Spring.
 John S. Edge, Bryan, Texas, Machine for Building Fences.
 A. W. Tipton, Topeka, Kansas, Coal Box.
 F. & V. Becker, Cincinnati, Baling Press (Two Patents).
 P. Dunbar, Cincinnati, Ironing Table and Clothes Drier.
 C. H. Scholle, Cincinnati, Cigar Lighter.
 E. R. Deverall, Cincinnati, Cans (Two Patents).
 S. Hawker, Cincinnati, Bed Bottom.
 A. W. Koch, Cincinnati, Desk.
 F. Henry, Cincinnati, Egg Beater.
 S. Gossdorfer, Cincinnati, Pants.
 J. Krueger, Cincinnati, Toy Horse and Cradle.
 George S. Graf, Cincinnati, Veneering Machine.
 C. H. Kuhn, Cincinnati, Wood Filler.
 Martha A. Iliff, Cincinnati, Guides for Pen Holders.
 J. G. Wallace, Cincinnati, Envelope.
 Adkins & Bogenschutz, Cincinnati, Buggy Valance.
 Lewis & Brice, Cincinnati, Galvanic Battery.
 C. E. Lecount, Cincinnati, Benzine Can.
 Dr. S. E. Hyndman, Cincinnati, Cosmetic Glove.
 Ed. W. Cox, Cincinnati, Cord Fastener.
 M. J. Somers, Cincinnati, Sash Fastener.
 Hak & Woodworth, Cincinnati, Cigar Table.
 Ross Forward, Cincinnati, Grain Scale, Car Coupler.
 Mrs. I. Hillen, Cincinnati, Stirrup.
 P. J. Welch, Cincinnati, Rheumatism Medicine.
 J. C. Pennington, Cincinnati, Planer Attachment.
 R. C. Nicholas, Cincinnati, Wardrobe.
 George Berkmyer, Cincinnati, Safe.
 T. J. Meierdирk, Cincinnati, Potato Digger.
 J. Cunningham, Cincinnati, Hog Hoist.
 J. H. Caine, Jr., Cincinnati, Elevated Railway.
 J. B. Ford, Buena Vista, Miss., Muzzle.
 Wm. H. Fuller, Cincinnati, Combined Cane and Fan.
 C. E. Frick, Cincinnati, Lathe Attachment for Turning Rings.
 J. M. Nolan, Cincinnati, Press Attachment.
 C. F. Moellman, Cincinnati, Device for Tinting Sketches.
 B. Roux, Cincinnati, Stove Pipe Shelf.
 M. V. Bavis, Linwood, Ohio, Lathe Head.
 L. E. Ransom, Bryan, Ohio, Bed Bottom.
 S. H. Walz, Three Rivers, Mich., Hand Car.
 B. F. Fowler, Eau Claire, Wis., Grain Separator.
 W. M. Curry, Morning Sun, Ohio, Thill Coupling.
 Lufallen & Pairen, Carroll, Ohio, Tug Link.
 J. Thomas, Galveston, Ind., Grain Scale.
 T. J. Muller, Lockland, Ohio, Screw Cutting Device.
 W. P. Myer, Terre Haute, Ind., Elevator Bucket.
 J. F. A. Mumm, Newport, Ky., Toy Cap Exploder.
 A. G. Rogers, Lathrop, Mo., Hay Rake and Loader.
 M. W. Mahan, Dayton, Ohio, Window Frame and Sash.
 E. V. Heaford, Covington, Ky., Sash Fastener, Door Check.
 Stockwell & Davis, Covington, Ky., Fruit and Vegetable Cutter.
 Dr. S. D. Spence, Ludlow Grove, Ohio, Appliance for Horses' Hoofs.
 J. Baker, Lebanon, Ohio, Shoe Box Indicator.
 H. S. Bradley, Gainesville, Ga., Compost.
 J. F. Dodds, Martinsburg, Ohio, Envelope.
 S. R. Holt, Worthington, Ohio, Bridge Truss.
 J. E. Morgan, Paducah, Ky., Bee Hive.
 W. C. C. Rouse, Florence X Roads, Ky., Railway Gate.

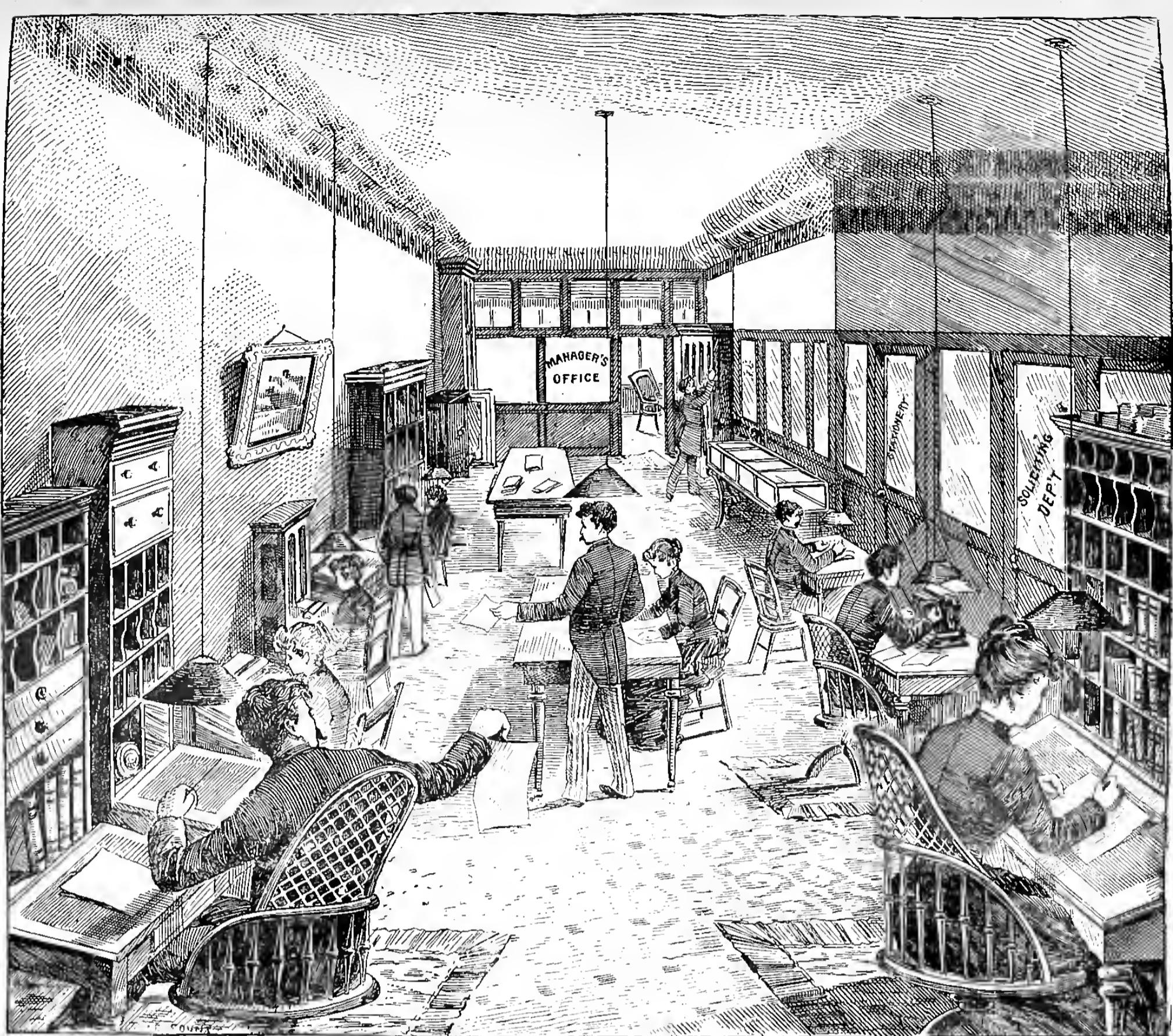
AND HUNDREDS OF OTHERS



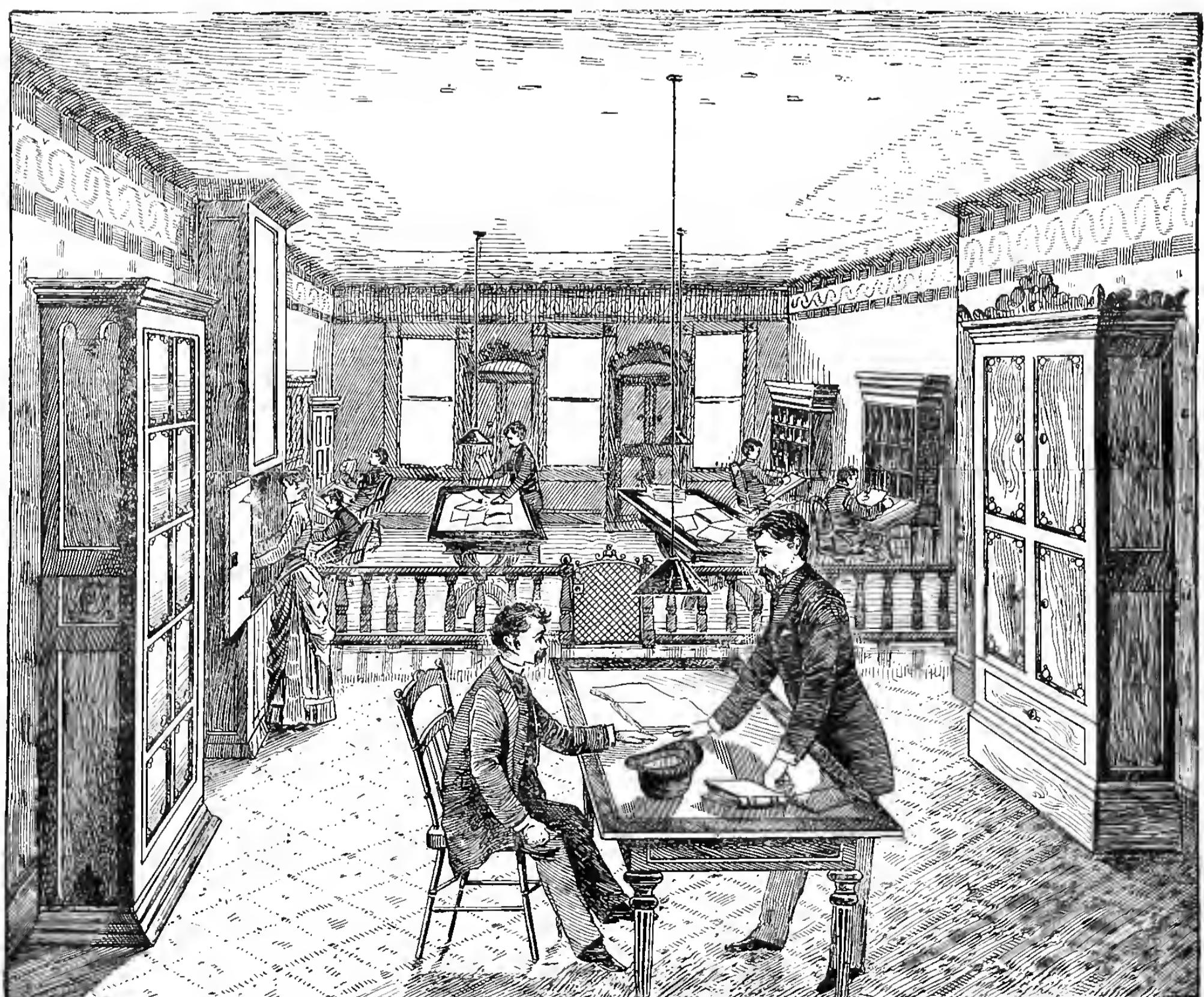
Interior View of Solleiting Department.







Interior View of Sales Department.



Interior View of Soliciting Department.



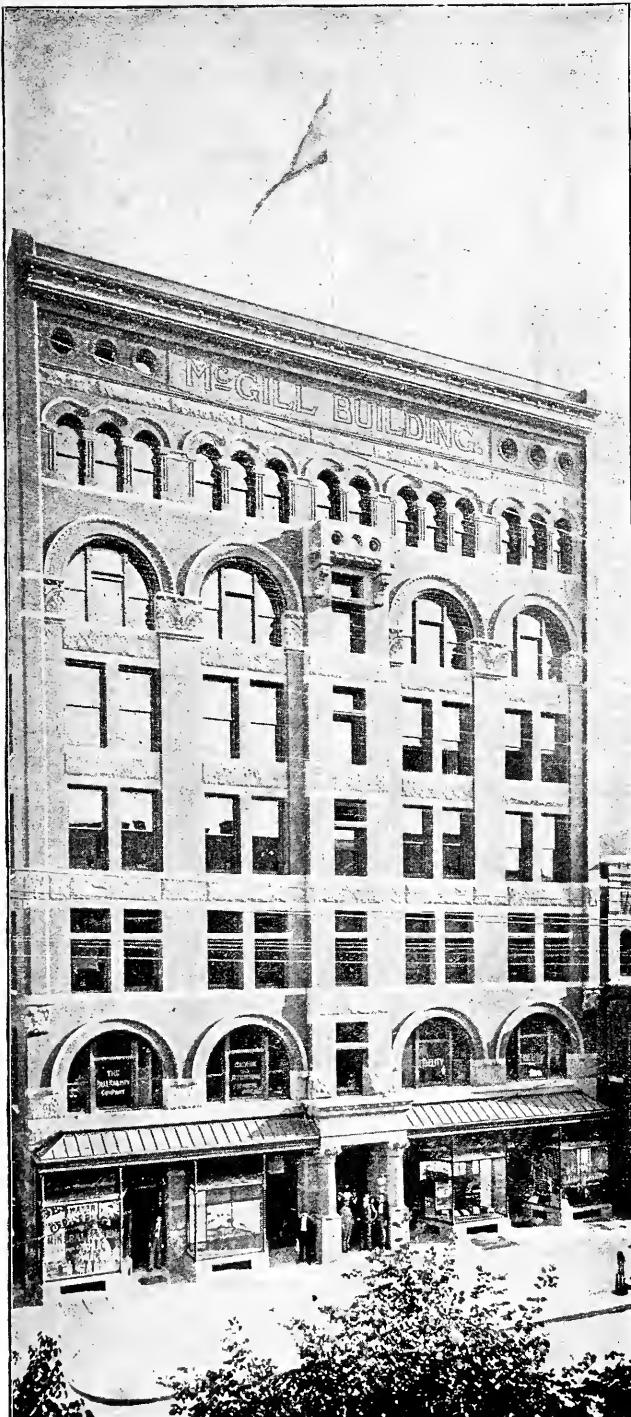


Branch Offices.

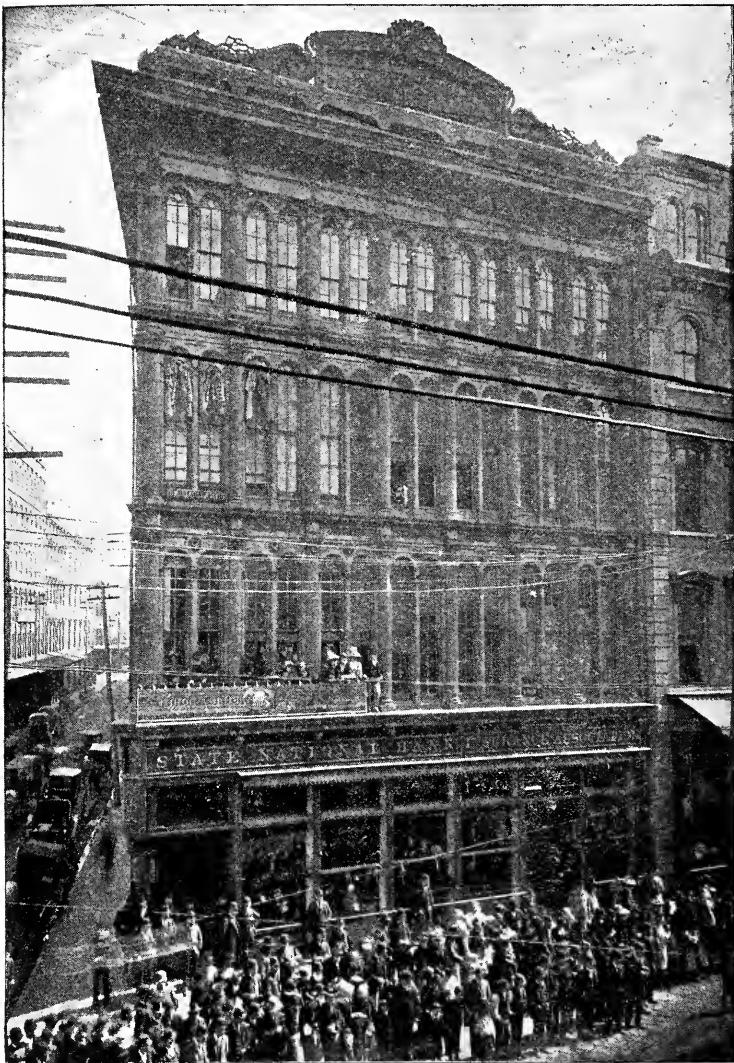
H. M. McCORMACK, Agt., Buhl Block, DETROIT, MICH.



A. S. CARNES, Agt., Equitable Building, ATLANTA, GA.



Branch Office. L. DEANE, Associate,
McGill Building, WASHINGTON, D. C.



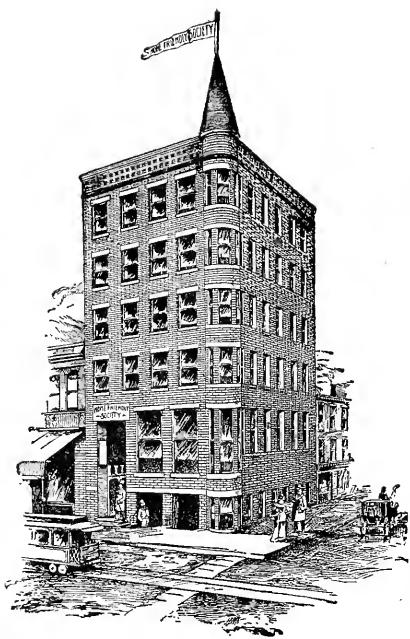
Branch Office.

W. C. SHEPARD, Agt.,
Story Building, NEW ORLEANS, LA

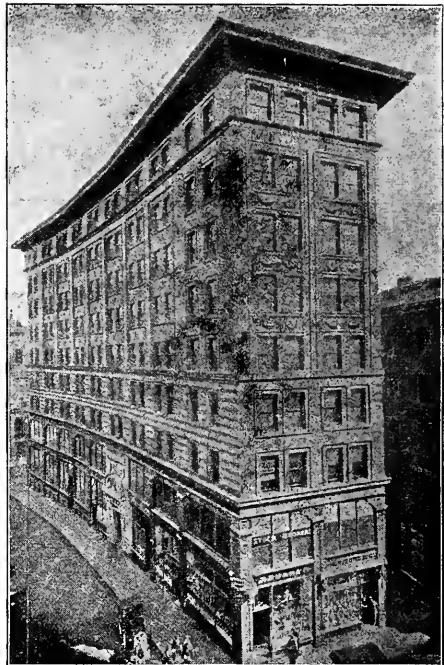


Branch Office.

H. ROTH, Agt., 406 Market St., ST. LOUIS, MO.



J. WM. SHEFFER, Agt., Home Friendly Building,
BALTIMORE, MD.

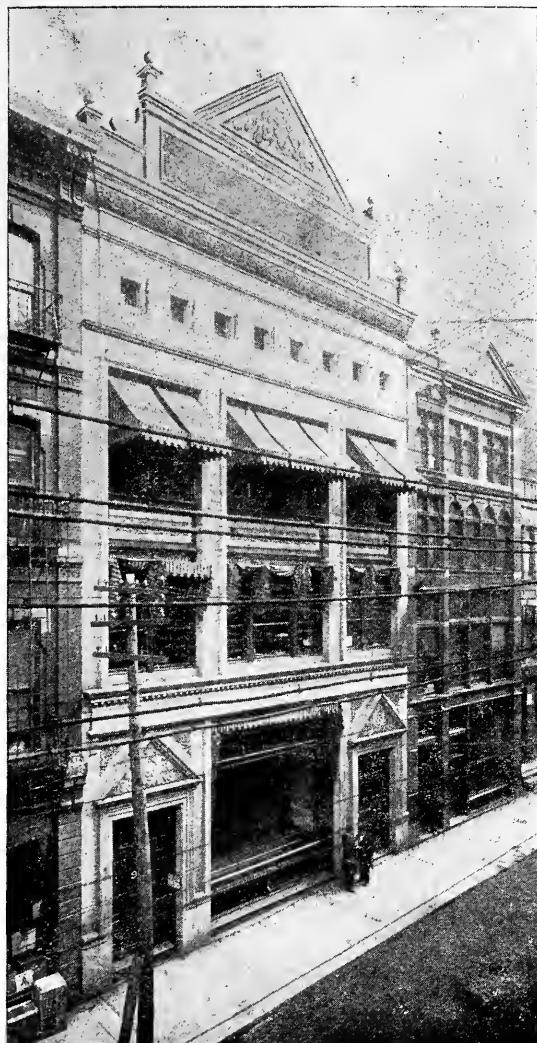


J. J. CONNOLLY, Agt., Carter B'l'd'g. BOSTON, MASS.



Branch Offices.

C. A. PRESTON, Agt., Equitable Building, DENVER, COLO.

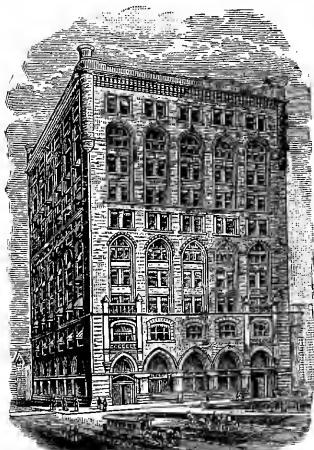


K. WM. SCHUCHMAN, Agt.,
93 Fourth Ave., PITTSBURG, PA.

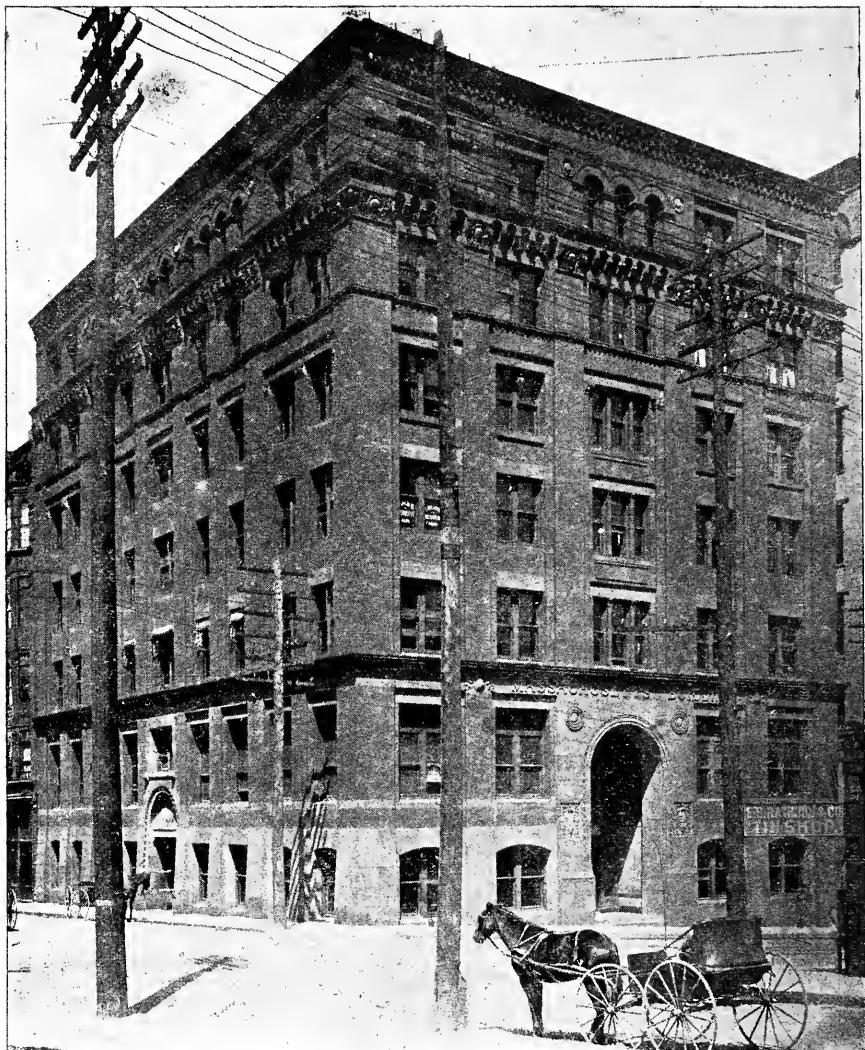
Branch Offices.



C. C. SHIMER, Agt.,
N. Y. Life Building, OMAHA, NEB.



W. L. COOKE, Agt.,
Society for Savings, CLEVELAND, O.



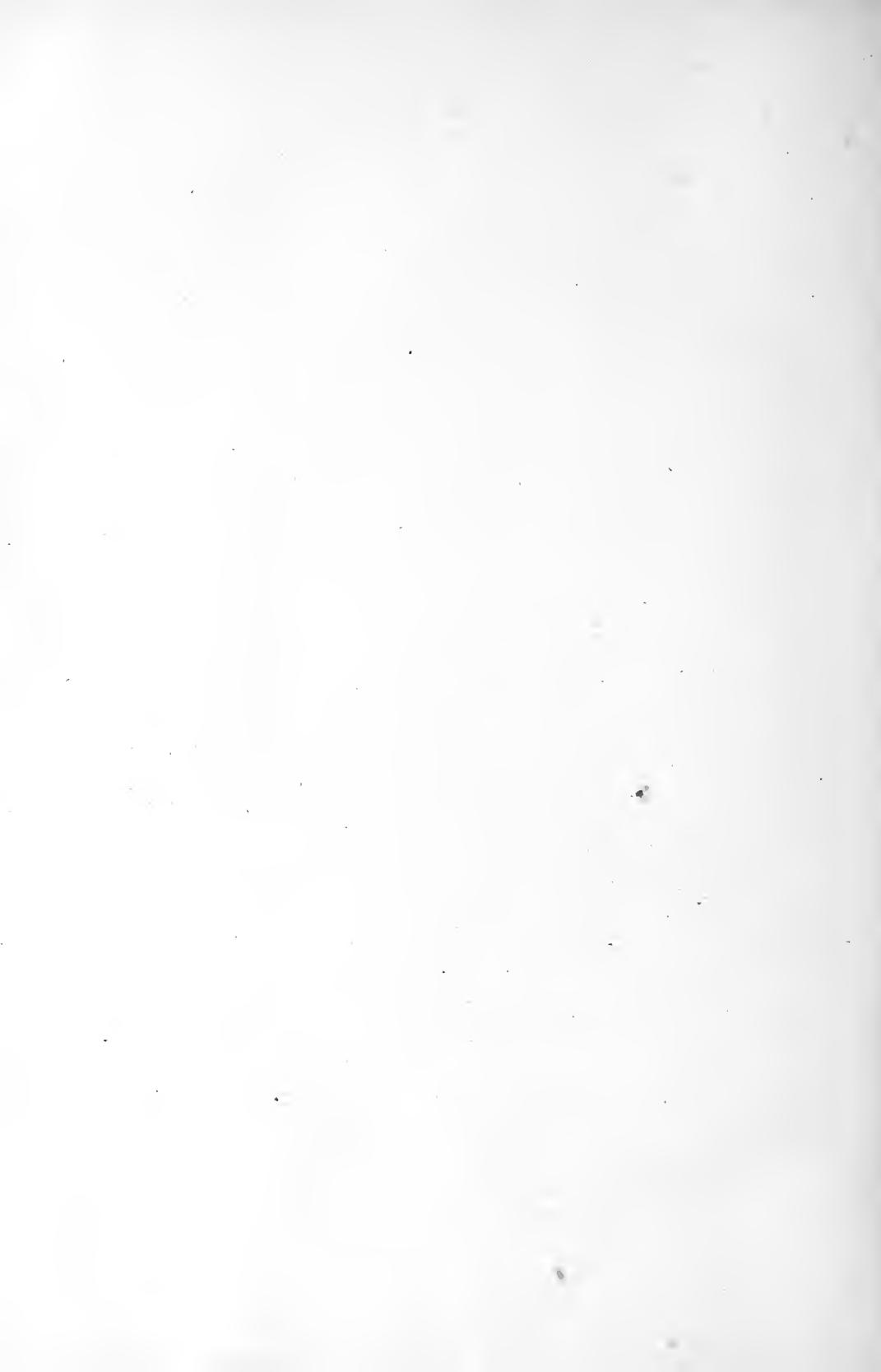
Branch Office.

B. HOWARTH, Agt.
Massachusetts Building, KANSAS CITY, MO.



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Schiller Building, CHICAGO, ILL.







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